Blinds and Screens

Willer

Manufacturing Co.

Fourth & Cedar sts
Milwaukee Wis

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Interior of a Modern Residence, Fitted with Willer's Inside Blinds, of Various Kinds and Styles,

Showing their Adaptability to Different Windows and Rooms.

This window fitted with Willer's Standard (spring-balanced) Sliding Blind No. 1, Class D.

The center window fitted with Willer's Columbian (weight-balanced) Sliding Blind, Class M. The two side windows fitted with Willer's Favorite (spring-balanced) Sliding Venetian Blinds.

This window fitted with Willer's Patent Folding Blind.

CATALOGUE C. No. 13.

COMPLETE ARCHITECTS' AND BUILDERS' EDITION.

SUMMER—1895.

.....

WILLER'S INSIDE WINDOW BLINDS,

COMPRISING THE FOLLOWING VARIETIES:

WILLER'S COLUMBIAN (weight-balanced) SLIDING BLINDS, Nos. 1, 2 and 3,
WILLER'S STANDARD (spring-balanced) SLIDING BLINDS, Nos. 1, 2 and 3,
WILLER'S COMMON (spring-balanced) SLIDING BLINDS, Nos. 4 and 5,
WILLER'S ENGLISH VENETIAN BLINDS,
WILLER'S FAVÒRITE (spring-balanced) SLIDING VENETIAN BLINDS,
WILLER'S PEERLESS (weight-balanced) SLIDING VENETIAN BLINDS,
WILLER'S PATENT FOLDING BLINDS,
WILLER'S REGULAR FOLDING BLINDS, Nos. 1, 2 and 3.

WILLER'S WINDOW SCREENS AND SCREEN DOORS,

STAIR WORK, NEWELS, RAILS, BALUSTERS, ETC.

THIS CATALOGUE SUPERSEDES AND CANCELS ALL PREVIOUS ISSUES.

WILLER MANUFACTURING CO.,

MAIN OFFICE AND WORKS: MILWAUKEE, WIS.
BRANCH OFFICES: CHICAGO AND ST. LOUIS.

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PRESS OF
THE EVENING WISCONSIN CO.
MILWAUKEE, WIS.

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PROLOGUE ••



WE ARE again before you with a product of the printer's and engraver's art, illustrating and describing as fully as possible the different specialties with which the name Willer has been identified for so many years. Those whose business acquaintance we have enjoyed for a number of years past, and who have noticed the gradual but persistent development of our business, as evinced by each succeeding issue of our catalogue, will concede that the present issue is as convincing evidence as could be desired that our progress is as substantial as it has been rapid—that we are ever on the alert for improvement, and that we still hold, as we have so long held, the lead in our special line of business.

It is now more than ten years since we first commenced the manufacture of Sliding Blinds. The fundamental principle of a Sliding Blind, that of sliding sections of blinds up and down in a window, was then not new any more than it is now, the Records of the Patent office showing that patents have been issued on such blinds more than fifty years ago. There never has been a Sliding Blind in the market, however, that was in any sense practical or deserving of any special mention as to merit and usefulness, until we introduced the "WILLER." This Blind, since its introduction, has met with such popular favor, that we are now shipping it into every state of the Union. A good thing also always has its imitators. In Canada, for instance, where we have no legal protection, they not only copy our Blind, but also our name, and call their product over there, the "Canadian Willer" Blind. This is at least an evidence that we have established a more than national reputation for this class of Blind.

Since the issue of our last Catalogue No. 9, 1890-91, we have bought out a Venetian Blind concern, and have added the manufacture of Venetian Blinds to our other Blinds, so that we are now making a full and complete line of Inside Window Blinds, Sliding, Folding and Venetian, each in several varieties and grades of quality and price, enabling us to gratify the wants of anybody in need of Blinds of any kind.

Besides the regular English Venetian Blind, such as is furnished by all makers of Venetian Blinds in general, we introduce in this catalogue a special Venetian Blind of our own, Willer's Sliding Venetian Blind. This Blind is made to slide up and down in a groove in the window-frame, and is so arranged that it will remain in position at any point in the window. You do not pull up the blind by cords—you push it up or pull it down by a handle attached to the lower bar of the blind. The blind is counter-balanced by weights, or it is held in place by springs, according to circumstances. Both methods of application, as well as full particulars in reference to this blind, are published in this catalogue in the proper department.



We also introduce herein our own method of balancing Sectional Sliding Blinds by weights. One or two firms, in a very pretentious manner, advertise their "Patent Weighted" Blinds as something novel. We made and hung blinds on weights more than ten years ago! We have not described them in our catalogue heretofore for the reason that we knew their sale in proportion to our spring-balanced blinds would be limited, and that in nine cases out of ten the latter would be just as serviceable and more economical. In principle there is nothing novel or "patentable" about this blind. The weighted blinds, of course, operate more easily than spring-balanced blinds, and where one does not mind the extra expense, are the better to use, especially in larger-sized windows. All windows over 4½ feet in width, especially if the blinds are to be of hardwood, should be provided with blinds balanced by weights.

Throughout this catalogue all questions of importance are fully treated in their respective departments. Where anything is not sufficiently plain, we will gladly answer any further inquiries by letter.

WILLER MANUFACTURING CO.

SUMMER, 1895.

OUR SUCCESS AT THE WORLD'S COLUMBIAN EXPOSITION, CHICAGO, 1893.

THE ONLY EXHIBITORS OF BLINDS AND SCREENS, AWARDED MEDAL AND DIPLOMA AT THE WORLD'S FAIR.



WORLD'S COLUMBIAN COMMISSION,
Executive Committee on Awards.

(COPY.)

WASHINGTON, D. C., March 16th, 1894.

Willer Manufacturing Co., Milwaukee, Wis.

GENTS: I herewith enclose you an official copy of your award, which in due time, will be inscribed in the Diploma and forwarded to your present address, unless otherwise indicated by you.

Yours,

JOHN BOYD THACHER,
Chairman Executive Committee on Awards.

UNITED STATES.
Department H—Manufactures.

Exhibitor—Willer Manufacturing Co. Address—Milwaukee, Wis.
Group—90. Class—571.
Exhibit—Sectional Sliding Blinds and Sliding Venetian Blinds, balanced by weights and springs. Sliding Window Screens and Screen Doors. Inside Folding Blinds.

AWARD.

Superior quality of material, workmanship and finish, perfect adjustment of springs and weights.

"Sectional Sliding Blinds and Sliding Venetian Blinds, balanced by adjustable springs." Material, workmanship and finish, springs holding at any point, yet allowing easy adjustment.

"Inside Folding Blinds." Material, workmanship and finish.

"Sliding Window Screens, balanced on Springs." Perfect action of Springs, simple and not liable to get out of order. Will not mar wood-work.

"Custom-Made Screen Doors." Variety and beauty of design, superior quality of material and workmanship.

(Signed,) **MERTON Y. CADY,**
Individual Judge.

Approved: **H. I. KIMBALL,**
President Departmental Committee.

Approved: **JOHN BOYD THACHER,**
Chairman Executive Committee on Awards.

Date—March 3d, 1894.

WE PRINT above an exact reproduction from photograph of our exhibit at the World's Fair, also a verbatim copy of an official communication received from the Executive Committee on Awards. At the time of writing this (summer, 1895), we are not yet in possession of the diploma, nor the medal issued in connection therewith, or we should have published photographic reproductions of both herein.

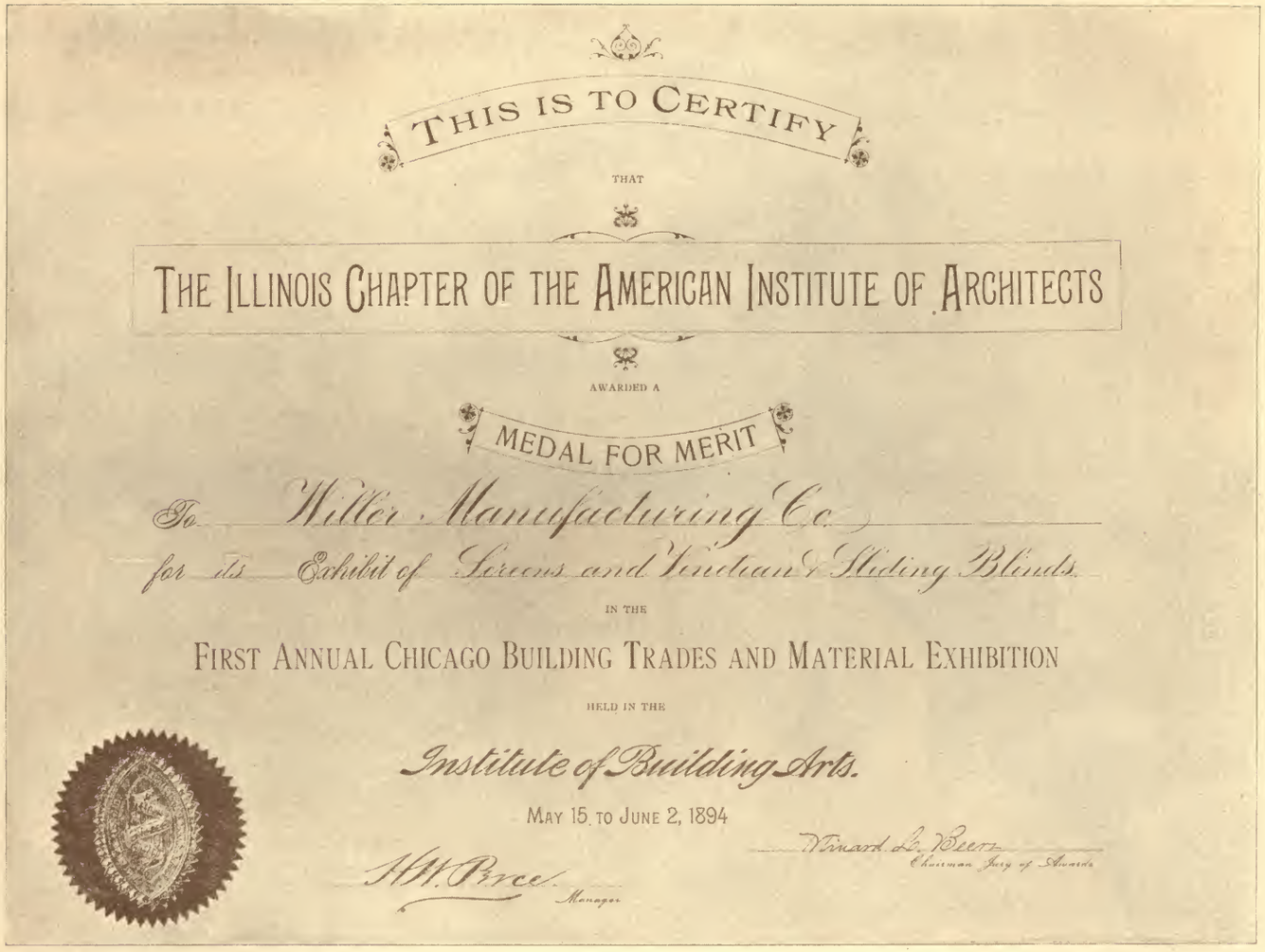
Our exhibit was located in the gallery in the north end of the main Manufactures Building, where, on account of its symmetrical architectural style and proportions, its exterior decorations in harmonious colors, its plate glass windows and art glass transoms, and, last but not least, its exposition of all the different kinds and grades of Inside Blinds, Window Screens and Screen Doors we manufacture, it elicited unusual admiration and expressions of approval from the thousands of people that have visited it. At this writing we are exhibiting it at the exposition of the Milwaukee Industrial Exposition Association, where in proportion it is attracting even more attention than at the World's Fair.

Our First .... Public Exhibit.



Exact reproduction, by photograph, of the Certificate of Award accompanying the Award of the Bronze Medal for the "Willer" Sliding Blinds, exhibited in Cincinnati, in 1888, at the Centennial Exposition of the Ohio Valley and Central States, held in that city during that year.

See photographic reproduction of Medal printed on another page.



Exact reproduction, by photograph, of the Certificate of Award granted the Willer Manufacturing Co. by one of the ablest bodies of architects in the country, the Illinois Chapter of the American Institute of Architects. See photographic reproduction of Medal, printed on another page.



Exact Reproduction of the Willer Exhibit at Cincinnati, 1888.
Taken from a Photograph.



Bronze Medal for Excellence awarded William Willer at the Cincinnati Centennial Exposition, 1888.

THE FIRST

PUBLIC EXHIBITION OF THE WILLER SLIDING BLINDS,

in competition with many others, was made at the Centennial Exposition of the Ohio Valley and Central States, held in Cincinnati, Ohio, 1888, where it captured the only Medal and Diploma awarded to goods of this class. See copy of Certificate of Award printed on another page.



Bronze Medal of Superiority, awarded this Company (through its agents) by the American Institute, New York, 1890.



Bronze Medal for Merit, awarded this Company by the Illinois Chapter of the American Institute of Architects at the First Annual Chicago Building Trades and Material Exhibition, held in the Institute of Building Arts, Chicago, May 15th to June 2d, 1894. See copy of Certificate of Award printed on preceding page.



Bronze Medal of Superiority awarded this Company (through its agents) by the American Institute, New York, 1891.

WHAT A FEW ARCHITECTS SAY

REGARDING THE QUALITY AND MERITS OF THE WILLER BLINDS.

EXTRACTS FROM THEIR CORRESPONDENCE.

Mr. J. F. Brown, Architect, Melrose, Mass.: "Have used the Willer Blinds in part of Hon. Wm. E. Barrett's house and am much pleased with them."

Mr. T. C. Groomes, Architect, Rockville, Md.: "I have specified and used your Inside Blinds as well as other makes, but must say I like yours better than any other I have seen or used."

Mr. F. W. King, Architect, Norwich, N. Y.: "Your Sliding Blinds have given good satisfaction wherever used."

Mr. E. R. Snodgrass, Architect, Westford, Pa: "I have used your Blinds in one building and pronounce them first-class in every respect. They work well and make a nice finish for windows."

Mr. Isaac C. Coleman, Architect, Jacksonville, Ills.: "Your Inside Blinds have been used here for quite a number of years, and have given perfect satisfaction."

Mr. D. S. Shureman, Architect, Rockford, Ills.: "I have used your Blinds largely in Cincinnati as well as here, and they are highly satisfactory."

Mr. M. R. Rhodes, Architect, Chambersburg, Pa.: "I always specify your Blinds when good work is wanted."

Mr. James Hull, Architect, Victoria, Texas: "I expect to fit up a large residence in this city in a few weeks with all your Blinds. Have them specified. I consider them the very best Blind manufactured. I have used a large number of them and they have given entire satisfaction."

Mr. J. H. Brugler, Architect, Danville, Pa.: "I have used your Sliding Blinds with entire satisfaction in a number of buildings."

Mr. John A. Shannon, Architect, Burnett, Texas: "Have used Willer Blinds and same have proven very satisfactory."

Mr. P. M. Hesch, Architect, Titusville, Pa.: "I have always used your Blinds in preference to all others here. While in the south I built a large house for Mr. William Atkinson, at Mongolia, Miss., and specified your Blinds therefor, and will continue to specify them at every chance."

Mr. P. D. West, Architect, Woonsocket, R. I.: "I use your Blinds whenever I have an opportunity."

Mr. Andrew Roth, Architect, La Crosse, Wis.; "I admire the excellence of your firm's work."

Mr. Jul. Leffland, Architect, Goliad, Texas: "I have been using your Blinds for several buildings, and latest for the residence here of Judge T. P. McCampbell, and I am now preparing plans for two large residences where your blinds will be specified."

Mr. A. Stenbiht, Architect, Alameda, Cal.: "I have specified your Blinds and found them to give entire satisfaction to owner and myself."

Mr. T. H. Palmer, Architect, San Bernardino, Cal.: "I have on several occasions recommended owners to correspond with you. I consider your work the very best in the line."

Mr. Thomas T. Carkeek, Architect, Dubuque, Iowa: "Your Sliding Blinds have given good satisfaction to all I have known of using them."

Mr. De Witt Bruyn, Architect, Savannah, Ga.: "I have seen your Blinds in working order and like them very much."

Mr. M. J. Miller, Architect, Tampa, Fla.: "I removed to this city from Anniston, Ala. Our firm used a large number of your Blinds in Alabama. They are superior to all others and will introduce them here."

Mr. B. L. Balsley, Architect, Fort Scott, Kansas: "I have used your Sliding Blinds and they have given entire satisfaction."

Mr. William Goding, Architect, Fort Riley, Kansas: "I enclose a plan of residence in Junction City, Kansas, for which I have specified the Willer Blinds, which I have always found entirely satisfactory."

W. H. Edwards, Architect, Knoxville, Tenn.: "I would be pleased to receive your new catalogue, as your work is of such high character."

Mr. J. E. Mapes, Architect, Middletown, N. J.: "I have specified your Blinds for the last three or four years. I am more then pleased with them, and the parties that have them would have no others."

Mr. A. P. Hyatt, Architect, St. Louis, Mo.: "I have used your Blinds in several buildings and they have proven entirely satisfactory. I cheerfully recommend them to any one desiring a perfect Inside Blind."

Wm. S. Eames and Thomas C. Young, Architects, St. Louis, Mo.: "We have used your Blinds in a great many houses and can say that they have always given satisfaction. They are finished with excellent workmanship and well selected woods."

Geo. W. Pipe, Architect, St. Louis, Mo.: "I have been specifying your Blinds for the last two years and find that they give general satisfaction. I especially like them on account of their many new features, manner of applying guideways, etc., which, together with their workmanship and material, render them, as I consider, the best Sliding Blinds extant."

Mr. T. B. Annan, Architect, St. Louis, Mo.: "The products of your house are the best of their kind within my knowledge."

Mr. Edward Mortimer, Architect, St. Louis, Mo.: "I know they have given entire satisfaction. The methods employed fill the bill better than any other Blind in the market."

J. B. Legg Architectural Co., St. Louis, Mo.: "We unhesitatingly pronounce your Blinds superior to any other Sliding Blinds we have ever used."

Grable & Weber, Architects, St. Louis, Mo.: "We have used Sliding Blinds with indifferent success, in fact, would not recommend their use until we used the Willer Blinds. We heartily recommend their use to any one contemplating building as a first-class reliable article, and far superior to any other Blind."

J. M. Archer, Architect, Baird, Texas: "The Sliding Blinds I ordered for Judge Solomon's house arrived yesterday and were put in the windows by the carpenters. Judge Solomon and myself are well pleased with them."

G. Taylor, Architect, Toronto, Canada: "Send me your latest catalogue as I want to correctly specify your make. They are the best on the market in this district."

J. W. Read, Architect, Denver, Colo.: "I have seen your Blinds used and consider them far superior to any others."

Noah Dillenbeck, Architect, Syracuse, N.Y.: "Am well pleased with the Blinds and have used them a good deal. They are first-class in every respect."

Larmour & Watson, Architects, Austin, Texas: "We have used your Blinds in a number of our buildings and they have given universal satisfaction. They are very neat, convenient, and so far as our experience goes, we believe them to be very durable."

Chas. B. Martin, Architect, Rome, Ga.: "In regard to your Inside Sliding Blinds, I never specify or use any other make in my work. The first that I used here was in a building erected in 1885. They are in as good condition now and work as well as when put in. Since then I have used them in a large number of other buildings."

Rittenhouse & Brage, Architects, Grand Island, Neb.: "We always recommend your Sliding Blinds in preference to any other."

F. W. Fay, Architect, Columbus, Ohio: "Have used your Blinds with very satisfactory results, and shall be glad to specify them whenever possible."

J. W. Churchill, Architect, Macomb, Ills.: "I used your Blinds on one job and they are very much admired. They are the nicest and best I ever saw and will hereafter use them on every occasion."

Cyrus K. Porter & Son, Architects, Buffalo, N. Y.: "We always take occasion to call the merits of your work to the attention of our clients."

J. S. Copp, Architect, Galena, Ills.: "I have often specified and used your Blinds in my practice. I like them, they work nice and look well, and will use them whenever I have an opportunity."

C. O. Rice, Architect, Alpena, Mich.; "I specify your Blinds at every opportunity."

D. D. Hall, Architect, New Lisbon, Ohio: "As for your Blinds, after an experience of over 30 years as an architect, I pronounce them decidedly the best and neatest Blinds on the market. I have placed them in buildings in this and other states, and they have invariably given perfect satisfaction."

E. Simon, Architect, Jersey City, N. J.: "I am very much pleased with your Blinds and style of finish. Have just put them in several buildings. I have used a certain other make before (naming it) but no more of them after using yours."

Mr. J. M. Littlefield, Architect, Haverhill, Mass: "I consider your Blinds perfect in every respect as to neatness, durability and cost."

Messrs. Johnston & Johnston, Architects, Sault Ste. Marie, Mich.: "We have used the Willer Blinds on several of our houses and they give the best of satisfaction."

Mr. Fred. A. Ingersoll, C. E., Architect, Seattle, Wash.: "I am very much pleased with your work and think your Blinds the best on the market."

Messrs. Sterrett & Smith, Architects, Dallas, Texas: "We have used your Blinds in a number of our buildings and find them most satisfactory."

Mr. C. W. Wentzel, Architect, Allentown, Pa.: "I am so well pleased with the Sliding Blinds that I hope to be able to place some more orders for them in course of the building season."

Messrs. T. W. Carrico & Co., Architects, San Antonio, Texas: "Your Blinds have given entire satisfaction wherever we have used them."

Mr. F. W. Humble, Architect, Buffalo, N. Y.: "The Sliding Blinds of your manufacture which I used about a year ago in the Mrs. L. L. Crocker residence in this city, are working and have worked to the entire satisfaction of everyone. I am more than satisfied now that your Sliding Blinds are the most perfect in construction, in the system employed, and the numerous styles to be had, and in their perfect working and durability, and in the many great advantages they offer over the old style of Blinds, the most perfect article I have seen for Inside Sliding Blinds."

Mr. E. Krause, Architect, El Paso, Texas: "Such Blinds as I have used of your make have given perfect satisfaction, and I believe them to be the best in use for their purpose, and I always advocate their use."

Mr. Chas. L. Swain, Architect, Boonton, N. J.: "I have seen your Blinds in several houses and consider them the best form."

Mr. James King, Architect, Boise City, Idaho: "I never hesitate to introduce and recommend your goods, especially your Blinds."

Messrs. Whiteway & Schroeder, Architects, Port Townsend, Wash: "We specify your Blinds whenever we have an opportunity to do so, as we consider them ahead of any that we have seen."

Mr. Chas. F. Helmle, Architect, Spokane Falls, Wash.: "You merit the enviable reputation you have acquired."

Mr. J. O. Gordon, Architect, Madison, Wis.: "Whenever occasion arises, I most cheerfully recommend your work to my patrons."

Mr. Albert L. West, F. A. I. A., Architect, Richmond, Va.: "I think your system a good one, and that in due course of time it will be generally adopted for all classes of buildings."

Mr. J. L. Tempest, Architect, Houston, Texas: "Although your Blinds have a **national** reputation, it will do no harm to place a sample of some in my new office, giving me an opportunity of better explaining their merits to my clients."

T. I. Lacey & Son, Architects, Scranton, Pa.: "There is one thing we can say for your Blinds, and that is that they are the best we have ever used. We have recently put in a couple of good sized orders to start the business in this locality."

Mr. W. Angelo Powell, Architect, St. Joseph, Mo.: "There has been but little doing in this section since 1893, but the prospects are a little better, and as they grow in improvement, it is but naturally current of thought and writing to mention your superior work."

Robert Cole, Architect, Bellefonte, Pa.: "The Blinds furnished for the Crawford house, at Lock Haven, are very satisfactory. Will be in Lock Haven in a few days and will report to you as to the screens wanted."

Geo. F. Barber & Co., Architects, Knoxville, Tenn.: "Whenever you have an enquiry from our vicinity or from a party we have furnished Blinds to, please let us know and we will be pleased to write them in your behalf, as we have no hesitancy whatever in recommending your Blinds, and we will hereafter specify them from time to time, as occasion demands."

Geo. F. Barber & Co., Architects, Knoxville, Tenn., on another occasion, wrote to Mr. Horace Mariette, Fort Wayne, Ind.: "We understand that you have been called upon by the agent for the Willer Inside Blinds, and wish to say in behalf of that company, that their Blinds are everything they represent, and if you are going to put in Inside Blinds, you cannot do better than to put in theirs. We have specified them and had them used in a great many instances, always with perfect success. They are perfectly reliable and able to back up everything they do, and we trust you will see it to your advantage to place your order for Blinds with them."

Mr. C. W. Bulger, Architect, Galveston, Texas, on March 20, 1895, wrote to Mr. J. Riley Gordon, Architect, San Antonio, Texas: "I have frequently, during the past ten years of my practice, used various forms of Wm. Willer's and the Willer Mfg. Co.'s work, embracing Blinds, Screens and Interior Finish work, and their work, of whatever kind, has always exceeded my expectations. Their Blinds, that they call second-class, are misleading in that they are, as far as my experience goes, equal, if not superior, to the best class goods of other manufacturers, and I do not hesitate in expressing my confidence in their Venetian Blinds proving equal to their other work in giving unqualified satisfaction."

S. W. Howard, Architect, Savannah, Mo.: "Have moved from Enterprise, Kansas, to this city. At present am preparing for an I. O. O. F. block, in which I will use your Blinds, which I consider superior to all others in ease of operating them, workmanship and finish."

What a Few Customers Say

Regarding the Quality and Merits of the Willer Blinds.

EXTRACTS FROM THEIR CORRESPONDENCE.

Mr. D. Gallagher, Rockford, Ills.: "I have received the blinds to-day and will remit in a few days. The blinds are finished up very nicely and I am well pleased with them."

Mr. Thos. D. Gray, London, Ont., Canada: "I received the blinds ordered for me through Mr. Hook, and I can assure you that I am more than pleased with them. They are a first-class article both in material and workmanship, and in every respect a credit to your establishment."

Messrs. J. R. Brown & Co., Greenville, Tenn.: "Please find check enclosed in payment of bill. The blinds were very nice indeed, and we are more than pleased with them. Will do all we can to sell more for you."

Mr. Chas. E. Kirk, Builder, Columbia, S. C.: "I have just finished a handsome residence for Mr. M. S. Bailey, banker, of Clinton, S. C., in which I put up your excellent Inside Sliding Blinds and I am confident they are a superior idea."

Dr. J. A. Maxwell, Physician and Surgeon, Curwensville, Pa.: "I have received the Blinds in good condition and they give entire satisfaction both in finish and workmanship. They are much admired."

Mr. John N. Martin, Beallsville, Ohio: "Enclosed find check to settle for Blinds just received. We are very well pleased with them."

Mr. D. S. Kramer, Elizabeth City, N. C.: "Enclosed please find check for ——— in payment for Blinds. They are entirely satisfactory and admired by all."

Mr. C. L. Sweet, Cleburne, Texas: "The Blinds have come to hand all O. K., and parties are much pleased with them."

Mr. Albert Schneider, Kankakee, Ill.: "Enclosed find draft for ——— to balance enclosed invoice. I received the goods yesterday and found them first-class and am highly pleased with them, and will be glad to recommend the same."

Mr. D. E. Schumaker, Atlanta, Ga.: "Your Blinds have been placed in my residence and thus far have given entire satisfaction. I am very much pleased with them and think them the prettiest and most convenient Sliding Blinds I have ever seen."

Mr. Wm. M. Findley, Altoona, Pa.: "I am very well pleased with your Blinds and shall recommend my friends looking for such goods to buy as I have done."

Mr. Rowan Thayer, Greenwood, Miss.: "The Sliding Blinds work beautifully. I put them on myself without any trouble."

Tanner & Churchill, Washington, D. C.: "We believe we have never told you of the great satisfaction we had with the Sliding Blinds you made for us. We will sum up by saying they are perfect and very satisfactory and we hope to use more of them in the future."

Mr. W. B. Seaton, Gen'l Mgr. Means & Russell Iron Co., Ashland, Ky.: "Enclosed find my draft for amount of your bill. The Blinds received all O. K., and we are very much pleased with them. We will have them put all over the house a little later on; expense of building has reduced funds a little at present."

Mr. W. S. Fleming, Pres. Farmer's Bank, W. Lebanon, Ind.: "The Screens give entire satisfaction. I had no trouble whatever in putting them up."

Mr. R. E. Lawrence, Pres. West Side National Bank, Wichita, Kas.: "The Blinds give good satisfaction and though the price is some higher than others intended to furnish them for, I feel satisfied in paying it."

Mr. J. D. Samuel, Carrollton, Ills.: "I want to say to you that the School Board is sick of their bargain with the other Blind concern from whom they purchased their Blinds at some less than you offered. None of the Blinds are over 38 inches wide and they cannot get them to work right. Several of the Board came over to me to look at the large 4-foot Blinds I got from you, and they could raise them with one finger. They examined the Guideways to see if I had not been oiling them, but they found none there. They have been oiling and soaping theirs and still they do not work."

Mr. Thos. Rodd, Chief Engineer Pennsylvania Lines west of Pittsburgh: "I have been acquainted with your work for some time and know it to be all right."

Mr. John S. Woolacott, Lake Geneva, Wis.: "I used to use quite a number of your Blinds bought through your Chicago office, and they have given good satisfaction and I cheerfully recommend same to any one."

Mr. Chas. E. Taylor, Fond du Lac, Wis.: "We continue to find the greatest comfort from your Screens. It is like living in a cage, so secure are we from the attacks of summer pests."

Mr. J. J. Metcalfe, Cashier Waxahachie National Bank, Waxahachie, Texas: "Enclosed find N. Y. exchange to cover bill of your Sliding Blinds, which came duly to hand, are placed in my residence and are exact finish to the different rooms to which they belong. They came in perfect shape and to say they give satisfaction does not express the meaning."

Dr. N. S. Richardson, Macon, Mo.: "Six years ago I purchased from you Sliding Blinds for my residence, which have given entire satisfaction and I now want to procure the same for an office I am fitting up."

Mr. W. L. Wilson, Pres. Nebraska City National Bank, Nebraska City, Neb.: "The English Venetian Blinds have been received and are in place, fitting nicely to measurement and meeting our wants and expectations nicely—they work admirably."

F. J. Cutter, Ex-Probate Judge, Washington Co., Marietta, Ohio: "I have had the Willer Blinds in my house for two years and they have given perfect satisfaction and are in as good condition as they were when I put them in. I would not exchange them for any other Sliding Blinds that I know of, having examined several others before buying these."

Mr. J. R. Crawshaw, Des Moines, Iowa: "It is all in keeping with the superior quality of your goods, (there is no taffy in this), which so far as I have handled, are the best goods manufactured."

Mr. R. U. Leonori, Jr., St. Louis, Mo.: "The Screens and Blinds are very satisfactory and nicely put up by your representatives here."

Mr. A. J. Schulte, Pittsburgh, Pa.: "The Willer Sliding Blinds, which you placed in my house about a year ago, are working to my entire satisfaction and find them superior to all other Blinds and an ornament to my house. I am pleased to say that I have never regretted taking your advice by paying a sum of money to cancel my order with another firm. I am pleased to recommend your Blind. (This letter was addressed to our Pittsburgh agent.)

Mr. C. T. Wickwire, of Wickwire Bros., Cortland, N. Y.: "You will remember you sent me the Blinds, which I am glad to say are very nice."

Mr. John R. Richards, Bunker Hill, Ills.: "Screens came to hand and were put up in good order and are very satisfactory. The work of fitting is also a first-class job."

Mr. J. K. Gill, Contractor and Builder, Sherman, Texas: "I have unpacked and put up the Inside Sliding Blinds that O. T. Lyon & Son ordered for Mr. F. C. Dillard's residence here. They are the best finished goods I have ever seen in this country. Mr. Dillard now also wants your Screens and Doors."

Mr. H. N. Menter, Waukegan, Ills.: "I have used many of your Blinds while I was located in Wisconsin and they gave perfect satisfaction. I am now trying to get them in here."

John R. Leisenring, Cashier First National Bank, Hazleton, Pa.: "I have had your Blinds in my house now for four years, and in constant use by servants and four children and they are as good to-day as the day they were bought. I am of the opinion that the Willer is the most perfect Sliding Blind in the market, and I have examined all the different Blinds.

DON'T WAIT UNTIL YOU ACTUALLY NEED YOUR SCREENS AND BLINDS, BUT PLACE YOUR ORDERS WITH US EARLY.

The experiences of one of our Texas customers, Mr. S. Webb, of Webb & Hill, Albany, Texas, as shown by his correspondence.

April 2d, 1893, Mr. Webb writes: "I beg to enclose an order for Sliding Blinds, and also one for Screens, which I hope you will fill without delay. * * * Please let me know when you will make the shipment. In acknowledging receipt of this order, please state what the total net cost will be."

April 6th, 1893: "I send you by this mail a sketch of the circular Blinds and Screens that I want, which you will please add to the order already mailed to you."

April 18th, 1893: "I dropped you a postal last night, acknowledging receipt of your favor of the 14th inst., and stated that I would write fully to-day. The order is correct, with a few exceptions, which I have corrected, and I herewith return the order duly signed. It seems to me that you might ship my order a little earlier, as my house is about completed and it will necessitate my putting up curtains in the meanwhile, which I want to avoid. * * * I have had many offers from parties in the Blind and Screen business, to do better than you in prices, but thinking that you will make better goods gave it to you. If you suit me it will not be your last order from here."

May 19th, 1893: "I have not received any notice from you that my Blinds have been shipped. I trust that you have shipped them before this, as the sun is ruining my carpets and furniture. The Screens have not yet arrived, and the Lord only knows when they will come through. Will you kindly send out a tracer after them, and when you ship Blinds please rush them through and send tracer after them also. There is little left of us, and this little will soon be exterminated; the flies are in full possession, drill day and night, stand guard-duty at every opening; all of our food is well seasoned with them, and we have never known such devotion exhibited by any known species of—Devils! The only thing in the world that can possibly rout them is the superior Screens made by the Leading Blind Manufacturers of the United States—the name that heads this letter. If the Screens and Blinds reach me quickly, I will make a personal appeal to Rev. Sam Jones, (who is now in Texas,) and get him to pray for every man in your establishment, from the President down—not that you need it, but it will cause 'Old Nick' to keep further away from you."

May 21st, 1893: "I am pleased to inform you that the Screens have arrived, and those that have been put in so far give perfect satisfaction. I think that the others will also prove satisfactory. I now hope that the Blinds are on the way and will reach me speedily. The Screens were on the way eleven days, and if the Blinds come within that time I will be pleased."

June 6th, 1893: "I am pleased to say that the Blinds have come to hand, and as far as examined they are entirely satisfactory. I will report as soon as they have been separated and checked up. * * * Permit me to say that you certainly turn out splendid work."

August 18th, 1893: "Please accept my thanks for your kind favor of the 14th inst. * * * It will be my aim to get you all the business in my power. I am well known all over the state, and you need not hesitate to refer parties to me. I will write them personal letters in your behalf and highly recommend your work. We are delighted with our Blinds and Screens—they could not be improved upon."

November 5th, 1893: "* * * You are at liberty to refer any one to me, and if I don't place a good word for you it will be because I am in the lunatic asylum or have shoved off this mortal frame."

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On May 28th, 1895, Mr. Webb wrote us: "My friend, Mr. E. P. Davis, is going to build a fine residence on his ranch, in the place of the one recently destroyed by fire, and I have recommended him to get his material from you. * * * Now, I advise you to write at once to Mr. Davis and tell him I have referred you to him, and urge that he places his order with you. I will do you all the good I can—you treated me fairly and honestly, and I have not forgotten it."

The above, as far as printed, are verbatim copies of Mr. Webb's letters to us. The omitted portions thereof relate to details of the order and other matters irrelevant here. In publishing this correspondence we do so, not merely because of the graphic humor displayed therein by the writer, or the expressions of satisfaction contained therein regarding the quality and merits of the Blinds and Screens we furnished him, but principally because of the opportunity thereby given us for urging upon our customers the importance of the fact that all orders for Blinds and Screens, especially Screens, should be placed with us early—a sufficiently long time in advance of the time they are required, to afford us an opportunity of getting them out by such time, and getting them out right, without being obliged to crowd and hurry the work. Had Mr. Webb ordered his Screens in January or February, which he undoubtedly could have done just as well as in April, he would not have had an opportunity of witnessing the devotion exhibited by that particular species of "Devils," the common fly, nor would he, in his despair, have been obliged to think of appealing to supernatural powers to help him out of his troubles. A perusal of the above correspondence so clearly illustrates the importance of one's ordering his goods from us early, that further words upon the subject on our part appear entirely unnecessary.

The Military Posts of the Army of the United States

ARE LARGELY PROVIDED WITH WILLER'S BLINDS AND SCREENS.

THE NEW MILITARY POST, FORT BLISS, NEAR EL PASO, TEXAS, has in use 449 Sets Willer's Sliding Blinds.

These Blinds are in use in the Officers' Quarters of the Post. Captain George Ruhlen, Assistant Quartermaster, U. S. A., was the officer in charge of construction. In July, 1893, we shipped Contractors Geo. L. Evans & Co., 342 sets, and Contractor James McFerren, 107 sets of Sliding Blinds for use at above Post. The Government specifications for the above read as follows:

"All windows except in the kitchen, larder, pantry and attic are to have inside sliding blinds as shown in Willer's Catalogue for 1890, page 13—class E, No. 347—finished and trimmed as stated on page 30 of said catalogue (under heading **"First Quality"**) made of wood, finished in natural color as may be selected by the officer in charge, and will be as stated on page 54 of said catalogue, either No. 80, 83 or 84, and fitted with all necessary trimmings of first-class quality. * * * All the windows throughout the building are to have outside screens similar to pattern shown on Willer's Catalogue, page 84, figures 2 and 4, 1⅛ inch thick; black wire cloth, 14 meshes to the inch, doubled at edges under moulding, as will be directed. The front outside doors to have wire screen doors as per pattern shown in Willer's Catalogue, page 87, No. 62, and rear door page 88, No. 31. Doors to be of pine and painted; transom screens to correspond. * * * In the foregoing specifications relative to inside sliding blinds and wire screens, the catalogue of the Willer Manufacturing Co., of Milwaukee, Wis., is referred to for style, size and manner of construction. Inside Sliding Blinds of other manufacturers, or hand-made wire doors and window screens, will be accepted if equal in all respects to those made by the Willer Manufacturing Co."

THE MILITARY POST, FORT McPHERSON, NEAR ATLANTA, GA., has in use 134 Sets of Willer's Sliding Blinds.

J. D. Jervis & Co., Decatur, Alabama, were the purchasers of these blinds, and Nicholas Ittner, Fort McPherson, Ga., the carpenter contractor. Shipments were made as follows: August 9th, 1890, 96 sets; February 23d, 1891, 10 sets; May 25th, 1891, 7 sets; July 20th, 1891, 14 sets; July 29th, 1891, 7 sets; total, 134 sets required to complete contract.

NEW MILITARY POST, FORT LOGAN, NEAR DENVER, COLORADO, has in use 100 Sets Willer's Sliding Blinds.

Captain M. C. Martin, Assistant Quartermaster, U. S. A., was the officer in charge of construction. Shipment was made March 29th, 1894, to McPhee & McGinnity, Denver, Colo., purchasers of material for Damascio and Pellini, contractors. The Government specifications read as follows:

"The first and second story windows to have Willer's Inside Sliding Blinds, made from clear white pine, three sections high and five divisions wide for large windows. Blinds four panels wide to have rolling slats in two center panels the full height of window. Blinds three panels wide to have rolling slats in center panel, and Blinds two panels to have rolling slats in all divisions. The Blinds to have rubbed finish, and trimmed with Bronze Finger-Plates."

Mr. Frank J. Grodavent, 20 So. Sherman Ave., Denver, Colo., architect for these buildings, on June 6th, 1894, wrote us as follows:

"I enclose herewith a printed copy of the specifications treating on the subject of windows. These specifications are for the buildings in which we have lately placed your Blinds, which were furnished by Messrs. McPhee and McGinnity. In the specifications for all Government work, army portion, where a particular kind of work is specified, as the making of any particular fixture, the Quartermaster in charge has authority to use the equal specified if he so desires. In this case of Blinds your make was specified and I explained to the Captain their points of merit over all others made, and I now think, since they have been placed in the building, we have no reason to regret the selection. They are the best on the reservation. Their finish is best and the adjustable support is far ahead of anything used for the purpose."

THREE DOUBLE SETS OFFICERS' QUARTERS, FORT RILEY, KANSAS, have in use 162 Willer's Sliding Screens and 12 Willer's Screen Doors.

Captain Sam. R. Jones, Assistant Quartermaster, U. S. A., was the officer in charge of construction. On July 23d, 1894, shipment of the above was made to Henry Strong, Topeka, Kansas.

THE NATIONAL SOLDIERS' HOME, SOLDIERS' HOME STATION, NEAR LOS ANGELES, CALIFORNIA, has in use 76 Sets Willer's Sliding Blinds.

Shipment of the above was made March 3d, 1893, to J. M. Griffiths Co., lumber dealers, Los Angeles, California, for Jos. Falkenhan, contractor.

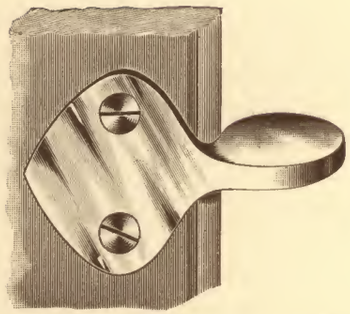
THE RHODE ISLAND SOLDIERS' HOME, BRISTOL, RHODE ISLAND, has in use 72 Willer's Sliding Screens and 10 Willer's Screen Doors.

Shipment of the above was made direct to the Home, May 30th, 1895.

We have on different occasions supplied smaller lots of Blinds and Screens to a number of Government Posts and Buildings, and at this writing, are negotiating for work to be done for Jefferson Barracks, near St. Louis, Mo., and Columbus Barracks, near Columbus, Ohio.

WILLER'S SIDE-STILE SASH LIFT.

(PATENTED, JULY 15th, 1884.)



Full size cut of Willer's Side-Stile Sash Lift.



Appearance of the Lift as applied to either the top or bottom sash of the window.

THIS is the simplest, neatest and most practical piece of hardware invented for the purpose. It is especially intended for two-lighted windows now in such general use. Two lifts are attached to the side-stiles of both the lower and the upper sash.

By its use the lower sash can be raised up and moved about as wanted; the upper sash can be lowered, and when raised up again, can be made to shut tightly against the top-jamb, enabling one to thereby easily close the sash-lock at the meeting rails of the sash. This convenience is a very important one—it cannot be had with any other lift and is alone a sufficient reason why it should be used in preference to any other lift. It is adapted to all sizes of windows up to 4 feet 6 inches in width. This Lift can also be used for the upper sash alone, in conjunction with a Hook or Flush Lift for the lower sash. See next page for a description of our Bottom-Rail Sash Lift.

We furnish this Lift in all kinds of metals and finishes. The following we keep in stock and can supply at short notice.

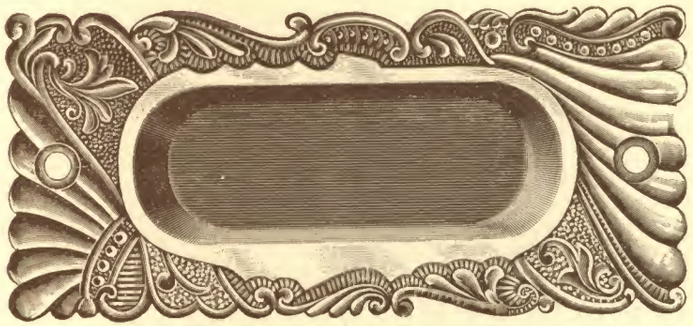
	Per Dozen.
No. 1—Iron, Boston Finish,	$1.25
2—Iron, Blue-Black or Bower-Barff Finish,	2.50
3—Iron, Plated Antique Copper Finish,	2.00
4—Iron, Nickel-Plated Finish,	2.00
5—Brass, Natural Finish,	2.50
6—Brass, Antique Finish,	3.25

	Per Dozen.
No. 7—Bronze, Light Natural Finish,	$2.50
8—Bronze, Antique Copper Finish,	3.25
9—Bronze, Nickel-Plated Finish,	3.25
10—Bronze, Oxidized Silver Finish,	5.00
11—Bronze, Silver-Plated Finish,	5.00

A sample pair (two pieces) of any of these Finishes will be mailed post-paid to any address, upon receipt of twenty-five cents in postage stamps.

Put up in paper boxes, two dozen pieces in a box, with screws to match. Other Finishes will be made to order. Discount quoted upon application.

WILLER'S BOTTOM-RAIL SASH LIFT.



THE accompanying engraving is a full size representation of this new Lift. It is applied to the bottom rail of the lower sash; one or two are used according to the size of the window and the degree of comfort and convenience desired.

Where this Bottom-Rail Lift is used on lower sash, the upper sash should always be supplied with the Side-Stile Sash Lift shown on preceding page.

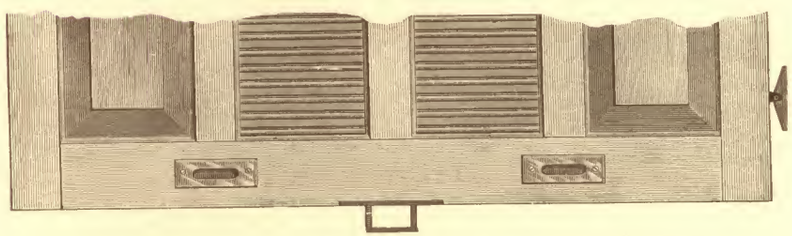
The Lift is stamped and wrought out of heavy sheet metal. The following finishes we carry in stock and can supply on short notice. Other finishes to order.

No. 20—Bronze metal, light natural color, ... per dozen, ...
No. 21—Bronze metal, antique copper finish, ... per dozen, ...
No. 22—Bronze metal, nickel-plated finish, ... per dozen, ...
No. 23—Bronze metal, oxidized silver finish, ... per dozen, ...
No. 24—Bronze metal, silver-plated finish, ... per dozen, ...
No. 25—Brass, natural color, ... per dozen, ...
No. 26—Brass, antique finish, ... per dozen, ...
No. 27—Iron, blue-black or Bower-Barff finish, ... per dozen, ...

Packed 2 Dozen in a Box, with round-headed Screws to match.

WILLER'S BOTTOM-RAIL BLIND LIFT

FOR SLIDING BLINDS.



Cut showing application of Bottom-Rail Blind Lift on bottom rail of Blind section.

THIS is the same Lift as the above applied to the bottom rail of each Blind Section. The accompanying engraving shows the manner of applying it to such a section. Two are required for each section. For Sliding Blinds this is more of an ornamental than a necessary piece of hardware, and we therefore do not regularly furnish or apply it to our Blinds, but furnish it only upon special order and at extra price. Whenever ordered, it will be used in addition to the No. 1 or No. 3 Lifting Plates regularly supplied with these Blinds. We furnish this Bottom-Rail Lift only with Willer's Columbian and Standard Sliding Blinds, Nos. 1, 2 and 3, which are five-eighths of an inch thick.

Extra cost of Blinds, supplied with this Bottom-Rail Lift, furnished upon application.



A SERIES OF CHICAGO, ILLINOIS, BUILDINGS,

Furnished with Willer Blinds or Screens.

Ashland Hotel, C. C. Whitacre, Proprietor,
Cor. Ashland Blv., W. Monroe St. and Ogden Ave.
H. P. Harned, Architect.

Residence of Mrs. S. Nast,
3653 Michigan Ave.
O. W. Marble, Architect.

The Lathrop Flats, W. L. Githens, Proprietor,
5101–3 Kimbark Ave.
Flanders & Zimmerman, Architects.

Corse & Jeffreys Buildings, 4523–35 Vincennes Ave.

Residence of Geo. E. Cave,
Cor. 54th St. and Greenwood Ave.
R. G. Pentecost, Architect.

Residence of W. A. Wieboldt,
1836 Surt St.
R. E. Berlin, Architect.

Department of Sliding Blinds.

Pages 21 to 158.

ARRANGEMENT OF GRADES

FOR WILLER'S SLIDING BLINDS.

THE term "Grades," in the sense we use it, is not exactly an indication of **quality.** The quality of material and the general workmanship is the same in all of our Blinds.

The term indicates principally a different arrangement of Panels and Slats, of different styles and construction, each succeeding grade, on account of such arrangement and difference of construction, being somewhat less expensive to produce than the preceding one.

In devising these Grades, the questions of cost and economy have been the main factors.

The following are the titles and technical terms of the different Grades of Sectional Sliding Blinds we make:

Willer's Columbian (weight-balanced) **Sliding Blind, No. 1.**
Willer's Columbian (weight-balanced) **Sliding Blind, No. 2.**
Willer's Columbian (weight-balanced) **Sliding Blind, No. 3.**
Willer's Standard (spring-balanced) **Sliding Blind, No. 1.**
Willer's Standard (spring-balanced) **Sliding Blind, No. 2.**
Willer's Standard (spring-balanced) **Sliding Blind, No. 3.**
Willer's Common (spring-balanced) **Sliding Blind, No. 4.**
Willer's Common (spring-balanced) **Sliding Blind, No. 5.**

All Columbian and Standard Blinds, Nos. 1, 2 and 3, are ⅝ inch thick; the Common, Nos. 4 and 5, are only ½ inch thick. See further description of each Grade under its proper heading.

Willer's Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3.

Willer's Common (spring-balanced) Sliding Blinds Nos. 4 and 5.

General Description.

THESE Blinds are made to slide up and down in a window, the same as sash, instead of being hung on hinges and folding out. They are made in sections or compartments, one, two, three, four or six sections to a window, according to size of opening. These sections may operate within the space of the window-opening, or they may run into a bottom pocket, or into a top pocket, or into both a top and bottom pocket, so that the window can at any time be either wholly or partly uncovered by the Blinds.

The different sections operate independently of and are in no wise connected with each other, thus enabling a person to open any part of the Blind either at the top, middle or bottom of the window as much as is desired.

Each section of Blind is balanced by two or more adjustable springs, which hold the different sections in place at any point in the window. These springs can be adjusted to suit the weight of each section; each spring has a wooden friction-block attached to it which bears against the wooden sliding-strip or Guide-way, as we term it, in which the sections slide, and does not, therefore, mar, chafe or scratch the same in any shape or manner.

The necessary Guide-ways, provided with channels or grooves in which the different sections slide, are furnished with each set of Blinds.

All sections have mortised and tenoned joints and are durably wedged and glued together. We make these Blinds five-eighths and one-half inch thick, according to grade of Blinds ordered.

Each section of Blind contains a number of divisions, varying according to the width of the window. These divisions are filled with our patent No-Rod Rolling Slats, Regular Rolling Slats, Open Stationary Slats, Closed Stationary Slats, Raised Panels and Flat Panels, or com-

binations of these, according to grade of Blinds ordered. This subject is fully treated under the headings of "Arrangement of Panels and Slats," where we offer and illustrate a greater variety and number of combinations than any other firm in the world. The patent No-Rod Rolling Slats that we employ in certain grades of these Blinds, are a distinct feature of the "Willer" Blinds. They are connected and operated by a continuous line of brass strips fastened to the ends of slats on both sides of the Blind, thereby dispensing with the usual wooden rod in front of the slats, and allowing the different sections of the Blind to be placed quite closely together in the window and still permit of their freely passing each other.

These Blinds can be placed in any window, old or new, even where no special preparations have been made therefor. Builders of new houses, however, should provide for frames specially made according to our details of frames published herein, and conforming to the Class and Grade of Blinds selected, thereby assuring for themselves all the special conveniences and advantages that these Blinds are calculated to afford.

Each set of Blinds comes finished completely, either with varnished, rubbed or polished finish, in the natural colors of the wood or stained in imitation of cherry, mahogany or walnut. It is also trimmed with all necessary hardware, such as Finger Lifts, Drop Handles and Pulls, all of our own pattern and invention, in Iron, genuine Bronze, Antique Copper, or in any other of the modern hardware finishes of the present day. We make these Blinds in different grades, of which we speak under the heading of "Arrangement of Grades for Willer's Sliding Blinds."

All these Blinds are made only to order, and it generally takes from four to six weeks' time to complete an order.

Special Order Blanks are supplied, with full instructions for ordering, printed thereon.



WILLER'S COLUMBIAN (weight=balanced)

SLIDING BLINDS, NOS. 1, 2 AND 3.

GENERAL DESCRIPTION.

ALL our plans, details and discussions on the subject of Sliding Blinds balanced by weights, are based upon the assumption that this kind of Blind will be used only in the better class of buildings, and that people wanting this kind of Blind will want only the best they can get. We therefore make them only in Grades Nos. 1, 2 and 3, five-eighths of an inch thick.

In point of general construction and mode of operation, they are the same as our Standard (spring-balanced) Sliding Blinds, except that the different sections are balanced by cords and weights instead of by springs.

The use of these Blinds requires in most cases a special preparation of the window-frames as shown by our published details.

We furnish the grooved window-jambs or the boxed guide-ways used with these Blinds, with the necessary pulleys placed therein, as well as the cords and weights. These weights, to economize space, are of compressed lead and of the proper weight to balance each section of Blind.

The grooved jambs or boxed guide-ways are provided with a covered opening to give access to the weights at any time it may be necessary.

The cord used is of the best braided quality. The ends of the cord are so attached to the Blind section that the cord can be conveniently detached and the Blinds taken out from the window at any time for cleaning or repairs.

Besides being balanced by weights, each section is provided with two adjustable springs, holding the same in place easily, but with sufficient firmness to prevent any rattling.

In all other respects, in the arrangement of classes, arrangement of grades, arrangement of panels and slats, grades of finish and application of hardware, they are identical with the Standard (spring-balanced) Blinds described on preceding pages.

ARRANGEMENT OF CLASSES FOR

WILLER'S SLIDING BLINDS.

WE divide these Blinds into Classes, as Class A, B, C, etc. The term "Classes" applies to all of our different styles and grades of Sectional Sliding Blinds, spring-balanced and weight-balanced. Each particular Class refers to the number of sections contained in a set of Blinds required to cover a window, and the particular manner in which the different sections are applied to such window. Each Class has some distinct feature of its own.

Class A, for instance, shows a window supplied with four sections of Blind, two sections of which slide into a lower and two sections into an upper pocket, requiring a two-grooved guide-way or slide-strip, two sections sliding in one groove.

Class B shows six sections of Blind, three sections sliding into a lower and three sections into an upper pocket, etc.

The most popular classes, by reason of their being the most economical, are **Classes D and E,** having respectively four and three sections of Blind each. The windows in these two Classes are not provided with any pockets, the Blinds sliding within the space of the window-opening. Some of the Classes require pockets at either the top or bottom of window, or in both places, for which special arrangements must be made beforehand.

On the following pages we print illustrations of more than twenty different Classes, together with a full description of each.

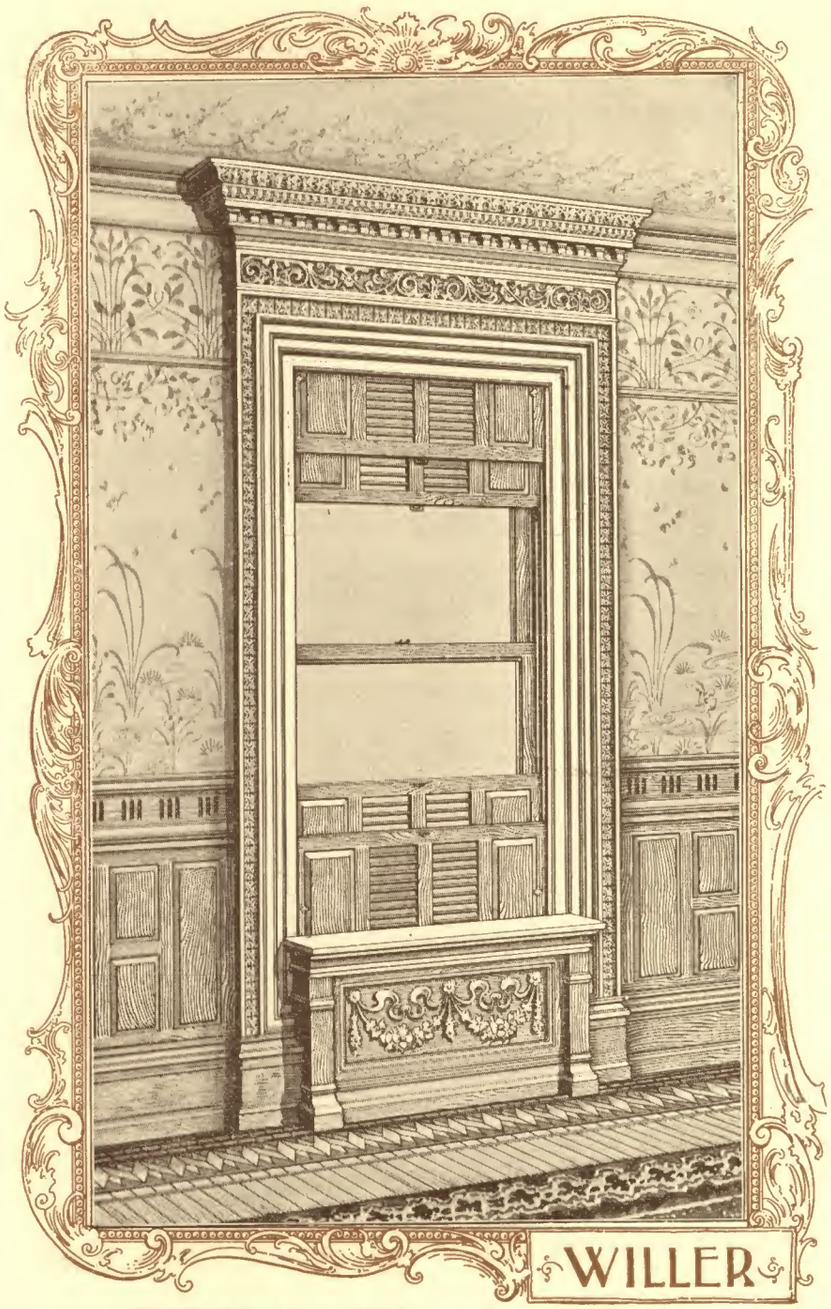


Illustration of Class A.—(Copyrighted.)

ARRANGEMENT OF CLASSES FOR

WILLER'S SLIDING BLINDS.

CLASS A.

Four Sections in Height. Guide-Ways with Two Grooves. Top and Bottom Pockets.

THIS CLASS consists of four sections of Blind to the window, arranged in such a manner that two sections go into a bottom and two into a top pocket, which pockets must be specially provided for this purpose by the architect and builder.

The Guide-ways have two grooves each, and are furnished of sufficient length to extend into both pockets. Two sections of Blind slide in each groove. The entire window can be uncovered by sliding the different sections into their respective pockets.

There is nothing required to cover the opening of the upper pocket. The lower pocket may also be left open; it is better, however, to cover the same by our new Hinged Window-stool, illustrated and described elsewhere in this catalogue. This must also be provided for by the architect and builder.

Each set of Blinds (except in grades Nos. 4 and 5) is trimmed with hardware as follows:

One Flat Plate and Drop Handle No. 15, on the bottom rail of each of the four sections to pull the Blinds down with when they are up; two Lifting Plates, either No. 1 or No. 3, according to the arrangement of panels and slats, on the face side of every section; one Concave Plate and Drop Handle No. 16, on the top rail of each of the two sections going into the lower pocket, to lift the same out of the pocket with.

The following details further illustrate the construction of the window-frame for this Class of Blind:

Columbian (weight-balanced) Sliding Blinds Nos. 1, 2 and 3. — Studding, 2 x 6, Nos. 1011 and 1017; brick walls, Nos. 1023 and 1029.

Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3. — Studding, 2 x 4, Nos. 234 and 235; studding, 2 x 6, Nos. 338, 339 and 342; brick walls, No. 414.

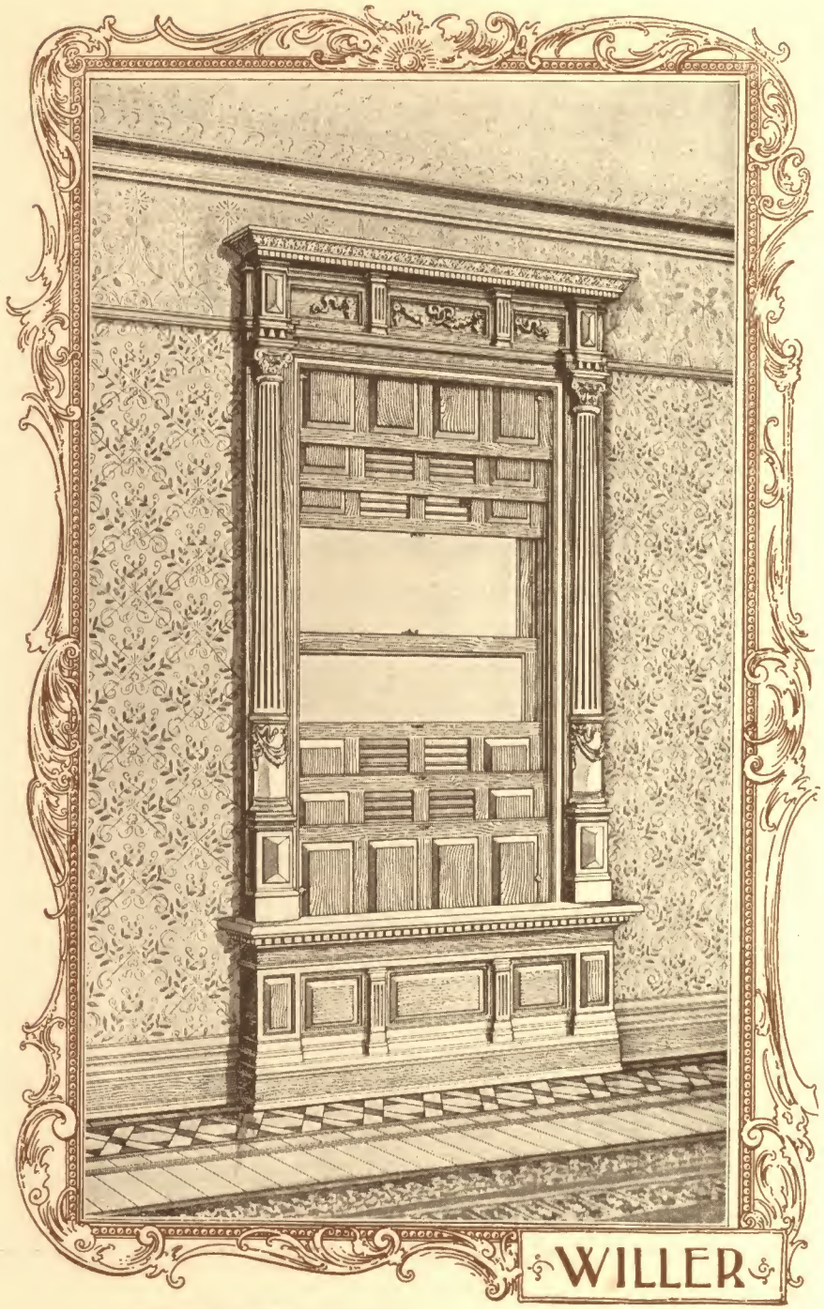


Illustration of Class B.—(Copyrighted.)

ARRANGEMENT OF CLASSES FOR

WILLER'S SLIDING BLINDS.

CLASS B.

Six Sections in Height. Guide-Ways with Three Grooves. Top and Bottom Pockets.

THIS CLASS consists of six sections of Blind to the window, arranged in such a manner that three sections go into a bottom and three into a top pocket, which pockets must be specially provided for this purpose by the architect and builder. The Guide-ways have three grooves each, and are furnished of sufficient length to extend into both pockets. Two sections of Blind slide in each groove. The entire window can be uncovered by sliding the different sections into their respective pockets. There is nothing required to cover the opening of the upper pocket. The lower pocket may also be left open; it is better, however, to cover the same by our new Hinged Window-stool, illustrated and described elsewhere in this catalogue. This must also be provided for by the architect and builder.

Each set of Blinds (except in grades Nos. 4 and 5) is trimmed with hardware as follows:

One Flat Plate and Drop Handle No. 15, on the bottom rail of each of the six sections to pull the Blinds down with when they are up; two Lifting Plates, either No. 1 or No. 3, according to the arrangement of panels and slats, on the face side of every section; one Concave Plate and Drop Handle No. 16, on the top rail of each of the three sections going into the lower pocket, to lift the same out of the pocket with.

The following details further illustrate the construction of the window-frame for this Class of Blind:

Columbian (weight-balanced) Sliding Blinds, Nos. 1, 2 and 3.— Studding, 2 x 6, Nos. 1010 and 1016; brick walls, Nos. 1022 and 1028.

Standard (spring-balanced) Sliding Blinds, Nos. 1, 2 and 3.— Studding, 2 x 4, Nos. 232 and 233; studding, 2 x 6, Nos. 336 and 337; brick walls, Nos. 413 and 415.



Illustration of Class C.—(Copyrighted)

ARRANGEMENT OF CLASSES FOR

WILLER'S SLIDING BLINDS.

CLASS C.

Four Sections in Height. Guide-Ways with Four Grooves. Top Pocket Only.

THIS CLASS consists of four sections of Blind to the window, arranged in such a manner that all four sections go into a top pocket, which pocket must be specially provided for this purpose by the architect and builder. The Guide-ways have four grooves each, and are furnished of sufficient length to extend into the top pocket. One section of Blind slides in each groove. The entire window can be uncovered by sliding all four sections into the top pocket.

Each set of Blinds (except in grades Nos. 4 and 5) is trimmed with hardware as follows: One Flat Plate and Drop Handle No. 15, on the bottom rail of each of the four sections to pull the Blinds down with when they are up; two Lifting Plates, either No. 1 or No. 3, according to the arrangement of panels and slats, on the face side of every section.

The following details further illustrate the construction of the window-frame for this Class of Blind:

Columbian (weight-balanced) Sliding Blinds Nos. 1, 2 and 3. — Studding, 2 x 4, No. 1002; studding, 2 x 6, Nos. 1005, 1006 and 1014; brick walls, Nos. 1018 and 1024.

Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3. — Studding, 2 x 4, Nos. 201, 203, 208, 209, 214, 215, 220 and 224; studding, 2 x 6, Nos. 306, 307, 308, 309, 312, 313, 317, 318, 323, 328 and 345; brick walls, Nos. 401, 402, 404, 406 and 408.

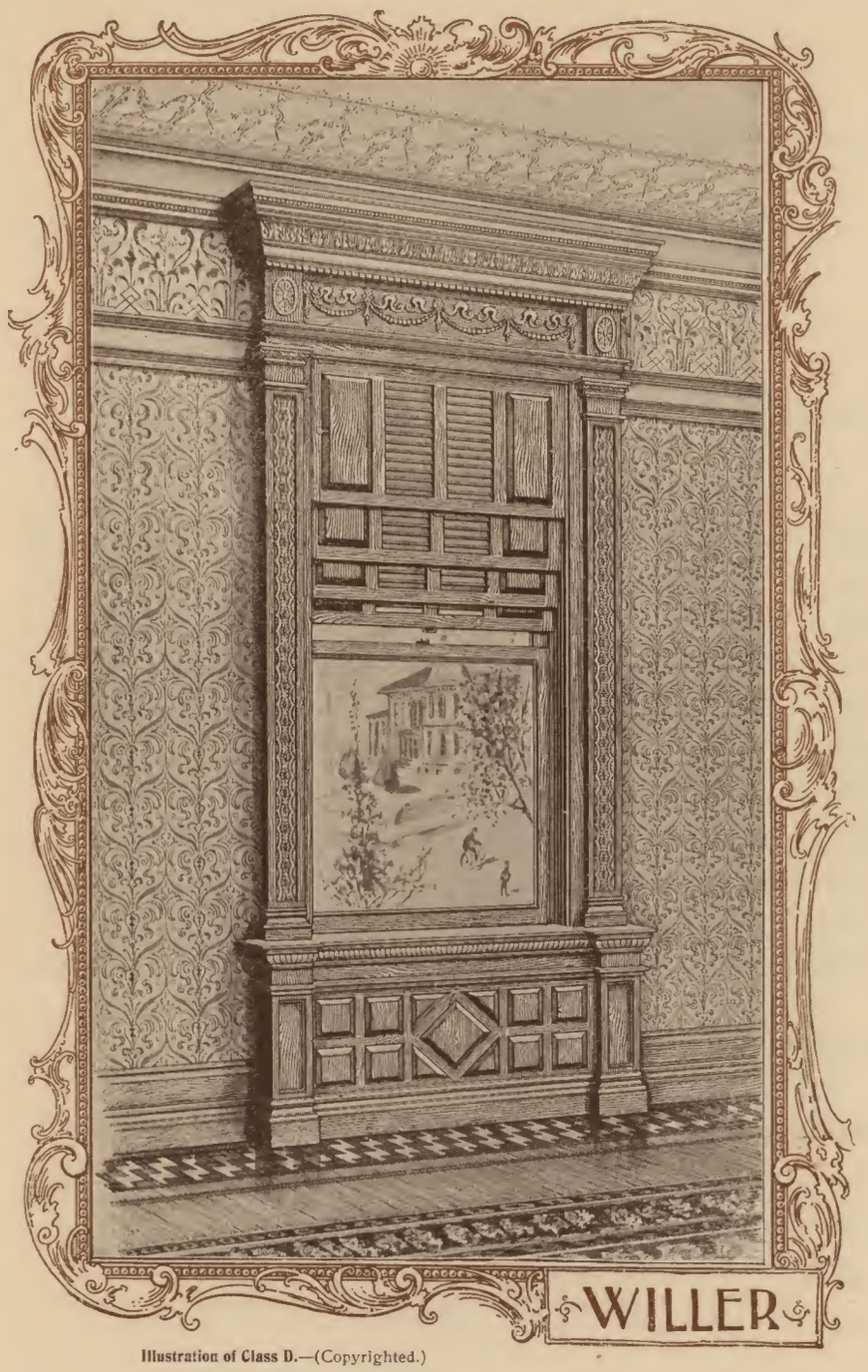


Illustration of Class D.—(Copyrighted.)

ARRANGEMENT OF CLASSES FOR

WILLER'S SLIDING BLINDS.

CLASS D.

Four Sections in Height. Guide-Ways with Four Grooves. No Pockets.

THIS CLASS consists of four sections of Blind to the window, arranged in such a manner that all four sections slide within the space of the window-opening, no pockets whatever being employed. The Guide-ways have four grooves each, one section of Blind sliding in each groove. A head-piece, same shape as side-pieces, but without grooves, is furnished to go across head-jamb and mitre with the side-pieces to make an even finish all around. Three-quarters of the window can at any time be uncovered by sliding all four sections to either the bottom or top part of the window.

Each set of Blinds (except in grades Nos. 4 and 5) is trimmed with hardware as follows:

One Flat Plate and Drop Handle No. 15, on the bottom-rail of each of the four sections to pull the Blinds down with when they are up; two Lifting Plates, either No. 1 or No. 3, according to the arrangement of panels and slats, on the face side of every section.

The following details further illustrate the construction of the window-frame for this Class of Blind:

Columbian (weight-balanced) Sliding Blinds, Nos. 1, 2 and 3. — Studding, 2 x 4, No. 1002; studding, 2 x 6, Nos. 1005, 1006 and 1014; brick walls, Nos. 1018 and 1024.

Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3. — Studding, 2 x 4, Nos. 201, 203, 208, 209, 214, 215, 220 and 224; studding, 2 x 6, Nos. 306, 307, 308, 309, 312, 313, 317, 318, 323 and 328; brick walls, Nos. 401, 402, 404, 406 and 408.

Common (spring-balanced) Sliding Blinds Nos. 4 and 5. — Studding, 2 x 4, No. 3; studding, 2 x 6, Nos. 13 and 14.



Illustration of Class E.—(Copyrighted)

ARRANGEMENT OF CLASSES FOR

WILLER'S SLIDING BLINDS.

CLASS E.

Three Sections in Height. Guide-Ways with Three Grooves. No Pockets.

THIS CLASS consists of three sections of Blind to the window, arranged in such a manner that all three sections slide within the space of the window-opening, no pockets whatever being employed. The Guide-ways have three grooves each, one section of Blind sliding in each groove. A head-piece, same shape as side-pieces, but without grooves, is furnished to go across head-jamb and mitre with the side-pieces to make an even finish all around. Two-thirds of the window can at any time be uncovered by sliding all three sections to either the bottom or top part of the window.

Each set of Blinds (except in grades Nos. 4 and 5) is trimmed with hardware as follows:

One Flat Plate and Drop Handle No. 15, on the bottom rail of each of the three sections to pull the Blinds down with when they are up; two Lifting Plates, either No. 1 or No. 3, according to the arrangement of panels and slats, on the face side of every section.

The following details further illustrate the construction of the window-frame for this Class of Blind:

Columbian (weight-balanced) Sliding Blinds Nos. 1, 2 and 3. — Studding, 2 x 4, No. 1000; studding, 2 x 6, Nos. 1004, 1007 and 1013; brick walls, Nos. 1019 and 1025.

Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3. — Studding, 2 x 4, Nos. 200, 204, 206, 207, 212, 213, 219, 225, 240 and 241; studding, 2 x 6, Nos. 300, 301, 302, 311, 314, 319, 320, 322 and 329; brick walls, Nos. 400, 407, 409 and 411.

Common (spring-balanced) Sliding Blinds Nos. 4 and 5. — Studding, 2 x 4, No. 1; studding, 2 x 6, Nos. 15 and 16.

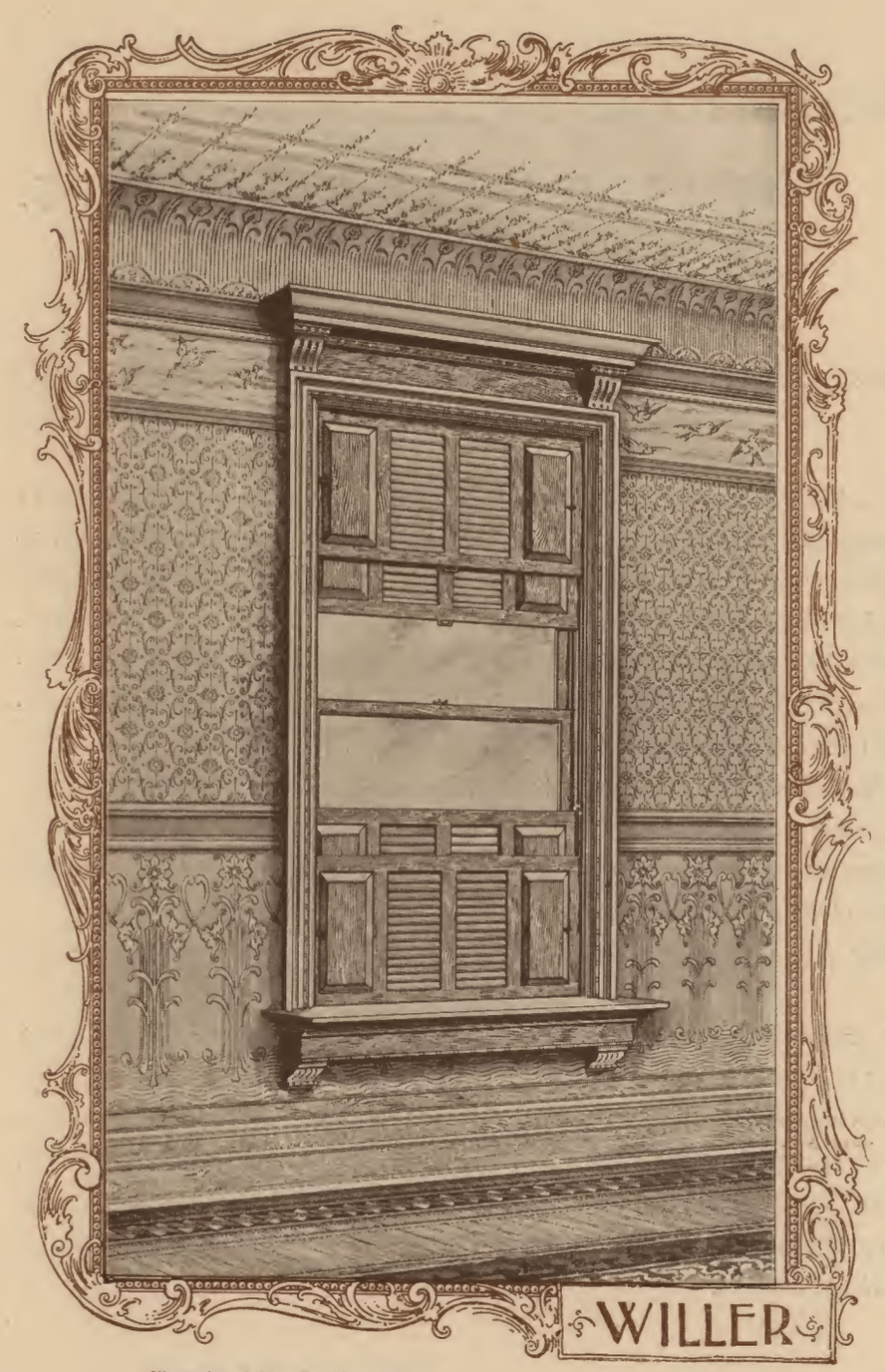


Illustration of Class F.—(Copyrighted.)

ARRANGEMENT OF CLASSES FOR

WILLER'S SLIDING BLINDS.

CLASS F.

Four Sections in Height. Guide-Ways with Two Grooves. No Pockets.

THIS CLASS consists of four sections of Blind to the window, arranged in such a manner that all four sections slide within the space of the window-opening, no pockets whatever being employed. The Guide-ways, however, have but two grooves each, two sections of Blind sliding in each groove, and enabling one to uncover only one-half of the window. A head-piece, same shape as side-pieces, but without grooves, is furnished to go across head-jamb and mitre with the side-pieces to make an even finish all around.

This class is supposed to be used where there is not enough space in the jamb to apply a guide-way having more than two grooves, and where the window is too large for the Blind to be made in only two sections, as in Class G.

Each set of Blinds (except in grades Nos. 4 and 5) is trimmed with hardware as follows:

One Flat Plate and Drop Handle No. 15, on the bottom rail of each of the four sections to pull the Blinds down with when they are up; two Lifting Plates, either No. 1 or No. 3, according to the arrangement of panels and slats, on the face side of every section.

The following details further illustrate the construction of the window-frame for this Class of Blind.

Columbian (weight-balanced) Sliding Blinds Nos. 1, 2 and 3. — Studding, 2 x 4, No. 1001; studding, 2 x 6, Nos. 1003, 1008 and 1012; brick walls, Nos. 1020 and 1026.

Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3. — Studding, 2 x 4, Nos. 202, 205, 210, 211, 216, 217, 218 and 226; studding, 2 x 6, Nos. 303, 304, 305, 310, 315, 316, 321, 324 and 330; brick walls, Nos. 403, 405 and 410.

Common (spring-balanced) Sliding Blinds Nos. 4 and 5. — Studding, 2 x 4, No. 2 studding, 2 x 6, Nos. 17 and 18.



Illustration of Class G.—(Copyrighted.)

ARRANGEMENT OF CLASSES FOR

WILLER'S SLIDING BLINDS.

CLASS G.

Two Sections in Height. Guide-Ways with Two Grooves.

No Pockets.

THIS CLASS consists of two sections of Blind to the window, arranged in such a manner that both sections slide within the space of the window-opening, no pockets whatever being employed. The Guide-ways have two grooves each, one section of blind sliding in each groove, enabling one to uncover one-half of the window. A head-piece, same shape as side-pieces, but without grooves, is furnished to go across head-jamb and mitre with the side-pieces to make an even finish all around. This Class of Blind is intended to be used for small windows, such as are sometimes put in pantries, closets, halls, etc.

Each set of Blinds (except in grades Nos. 4 and 5) is trimmed with hardware as follows:

One Flat Plate and Drop Handle No. 15, on the bottom rail of each of the two sections to pull the Blinds down with when they are up; two Lifting Plates, either No. 1 or No. 3, according to the arrangement of panels and slats, on the face side of every section.

The following details further illustrate the construction of the window-frame for this Class of Blind:

Columbian (weight-balanced) Sliding Blinds Nos. 1, 2 and 3.—Studding, 2 x 4, No. 1001; studding, 2 x 6, Nos. 1003, 1008 and 1012; brick walls, Nos. 1020 and 1026.

Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3.—Studding, 2 x 4, Nos. 202, 205, 210, 211, 216, 217, 218 and 226; studding, 2 x 6, Nos. 303, 304, 305, 310, 315, 316, 321, 324 and 330; brick walls, Nos. 403, 405 and 410.

Common (spring-balanced) Sliding Blinds Nos. 4 and 5.—Studding, 2 x 4, No. 2; studding, 2 x 6, Nos. 17 and 18.



Illustration of Class H.—(Copyrighted.)

ARRANGEMENT OF CLASSES FOR

WILLER'S SLIDING BLINDS.

CLASS H.

Three Sections in Height. Guide-Ways with Three Grooves.

Bottom Pocket Only.

THIS CLASS consists of three sections of Blind to the window, arranged in such a manner that all three sections slide into a lower pocket, which pocket must be specially provided for this purpose by the architect and builder. The Guide-ways have three grooves each, and are furnished of sufficient length to extend into this lower pocket. An ungrooved head-piece is furnished to go across the top-jamb and mitre with the side-pieces to make an even finish all around. One section of Blind slides in each groove. The entire window can be uncovered by sliding all three sections into the lower pocket. The lower pocket should be covered by our new Hinged Window-stool, illustrated and described elsewhere in this catalogue, and which must also be provided for by the architect and builder.

Each set of Blinds (except in grades Nos. 4 and 5) is trimmed with hardware as follows:

One Flat Plate and Drop Handle No. 15, on the bottom rail of each of the three sections to pull the Blinds down with when they are up; two Lifting Plates, either No. 1 or No. 3, according to the arrangement of panels and slats, on the face side of each section; one Concave Plate and Drop Handle No. 16, on the top rail of each of the three sections to lift the same out of the pocket with.

The following details further illustrate the construction of the window-frame for this Class of Blind:

Columbian (weight-balanced) Sliding Blinds Nos. 1, 2 and 3.—Studding, 2x6, Nos. 1010 and 1016; brick walls, Nos. 1022 and 1028.

Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3.—Studding, 2x4, Nos. 232 and 233; studding, 2x6, Nos. 336, 337 and 343; brick walls, Nos. 413 and 415.



Illustration of Class I.—(Copyrighted.)

ARRANGEMENT OF CLASSES FOR

WILLER'S SLIDING BLINDS.

CLASS I.

Three Sections in Height. Guide-Ways with Three Grooves. Blinds slide down to Floor.

THIS CLASS consists of three sections of Blind to the window, arranged in such a manner that all three sections slide down to the floor below the window-sill, without however employing any pocket for that purpose. The Guide-ways have three grooves each, and are furnished of sufficient length to extend down to the floor. A head-piece is furnished to go across top-jamb and mitre with the side-pieces to make an even finish all around. One section of Blind slides in each groove. The entire window can be uncovered by sliding all three sections down to the floor. The space below the window-sill may be plastered or finished with a wooden panel, preferably the latter. In the accompanying engraving we show the front or first section as containing all solid panels, the balance of the sections a combination of panels and slats. By solidly panelling the front section, this section forms a protection for the balance of the sections when all are drawn down to the floor, as well as giving the whole more the appearance of a panelled front.

Each set of Blinds (except in grades Nos. 4 and 5) is trimmed with hardware as follows:

One Flat Plate and Drop Handle No. 15, on the bottom rail of each of the three sections to pull the Blinds down with when they are up; two Lifting Plates, either No. 1 or No. 3, according to the arrangement of panels and slats, on the face side of every section; one Concave Plate and Drop Handle No. 16, on the top rail of each of the three sections to lift the same up with when they are down to the floor.

The following details further illustrate the construction of the window-frame for this Class of Blind:

Columbian (weight-balanced) Sliding Blinds Nos. 1, 2 and 3, — Studding, 2 x 4, No. 1000; studding, 2 x 6, Nos. 1004, 1007 and 1013; brick walls, Nos. 1019 and 1025.

Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3.—Studding, 2 x 4, Nos. 200, 204, 206, 207, 212, 213, 221 and 228; studding, 2 x 6, Nos. 300, 301, 302, 311, 314, 319, 320, 325 and 332; brick walls, Nos. 400, 407, 409 and 411.

Common (spring-balanced) Sliding Blinds Nos. 4 and 5.— Studding, 2 x 4, No. 6; studding, 2 x 6, Nos. 9 and 10.

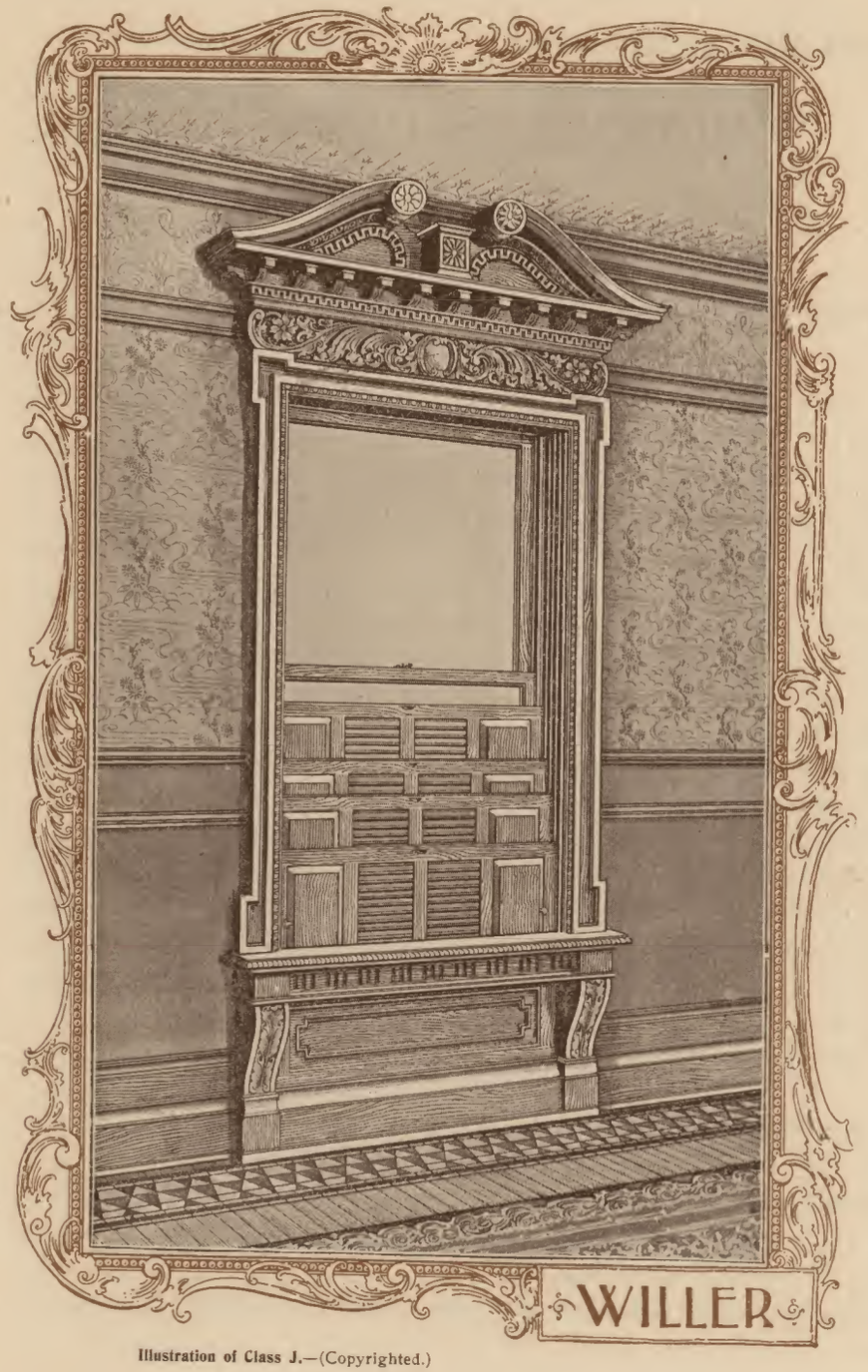


Illustration of Class J.—(Copyrighted.)

ARRANGEMENT OF CLASSES FOR

WILLER'S SLIDING BLINDS.

CLASS J.

Four Sections in Height. Guide-Ways with Four Grooves. Bottom Pocket Only.

THIS CLASS consists of four sections of Blind to the window, arranged in such a manner that all four sections slide into a lower pocket, which pocket must be specially provided for this purpose by the architect and builder. The Guide-ways have four grooves each, and are furnished of sufficient length to extend into this lower pocket. An ungrooved head-piece is furnished to go across the top-jamb and mitre with the side-pieces to make an even finish all around. One section of Blind slides in each groove. The entire window can be uncovered by sliding all four sections into the lower pocket. The lower pocket should be covered by our new Hinged Window-stool, illustrated and described elsewhere in this catalogue, and which must also be provided for by the architect and builder.

Each set of Blinds (except in grades Nos. 4 and 5) is trimmed with hardware as follows:

One Flat Plate and Drop Handle No. 15, on the bottom rail of each of the four sections to pull the Blinds down with when they are up; one Concave Plate and Drop Handle No. 16, on the top rail of each of the four sections to lift the same out of the pocket with; two Lifting Plates, either No. 1 or No. 3, according to the arrangement of panels and slats, on the face side of every section.

The following details further illustrate the construction of the window-frame for this Class of Blind:

Columbian (weight-balanced) Sliding Blinds Nos. 1, 2 and 3. — Studding, 2 x 6, Nos. 1009 and 1015; brick walls, Nos. 1021 and 1027.

Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3. — Studding, 2 x 4, Nos. 230 and 231; studding, 2 x 6, Nos. 334, 335 and 344; brick walls, No. 412.



Illustration of Class K.—(Copyrighted.)

ARRANGEMENT OF CLASSES FOR

WILLER'S SLIDING BLINDS.

CLASS K.

Four Sections in Height. Guide-Ways with Four Grooves.
Blinds slide down to Floor.

THIS CLASS consists of four sections of Blind to the window, arranged in such a manner that all four sections slide down to the floor below the window-sill, without however employing any pocket for that purpose. The Guide-ways have four grooves each, and are furnished of sufficient length to extend down to the floor. A head-piece is furnished to go across the top-jamb and mitre with the side-pieces to make an even finish all around. One section of Blind slides in each groove. The entire window can be uncovered by sliding all four sections down to the floor. The space below the window-sill may be plastered or finished with a wooden panel, preferably the latter. In the accompanying engraving we show the front or first section as containing all solid panels, the balance of the sections a combination of panels and slats. By solidly panelling the front section, this section forms a protection for the balance of the sections when all are drawn down to the floor, as well as giving the whole more the appearance of a panelled front.

Each set of Blinds (except in grades Nos. 4 and 5) is trimmed with hardware as follows:

One Flat Plate and Drop Handle No. 15, on the bottom rail of each of the four sections to pull the Blinds down with when they are up; two Lifting Plates, either No. 1 or No. 3, according to the arrangement of panels and slats, on the face side of every section; one Concave Plate and Drop Handle No. 16, on the top rail of each of the four sections to lift the same up with when they are down to the floor.

The following details further illustrate the construction of the window-frame for this Class of Blind:

Columbian (weight-balanced) Sliding Blinds Nos. 1, 2 and 3. — Studding, 2 x 4, No. 1002; studding, 2 x 6, Nos. 1005, 1006 and 1014; brick walls, Nos. 1018 and 1024.

Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3. — Studding, 2 x 4, Nos. 201, 203, 208, 209, 214, 215, 222 and 227; studding, 2 x 6, Nos. 306, 307, 308, 309, 312, 313, 317, 318, 326 and 331; brick walls, Nos. 401, 402, 404, 406 and 408.

Common (spring-balanced) Sliding Blinds Nos. 4 and 5. — Studding, 2 x 4, No. 4; studding, 2 x 6, Nos. 7 and 8.



Illustration of Class L.—(Copyrighted.)

ARRANGEMENT OF CLASSES FOR

WILLER'S SLIDING BLINDS.

CLASS L.

Four Sections in Height. Guide-Ways with Four Grooves. Transom Window. No Pockets.

THIS CLASS consists of four sections of Blind to the window, arranged to cover only part of the window. The window is provided with a transom, and it is not desired that the transom be covered with the Blind. As will be noticed in the engraving, the Blind covers the lower portion of the window only, reaching up to the transom. The Guide-ways have four grooves each, one section of Blind sliding in each groove. The Guide-ways reach up to the top of the window, past the transom-bar, mitreing with an ungrooved head-piece across the top-jamb to make an even finish all around. It is supposed that the transom-bar in this Class is but a narrow one, and that the Guide-ways can be arranged to extend to the top of the window, so that all sections of Blind can be moved up to the top of the window in front of the transom, thereby entirely uncovering the lower part of the window, or, in this case, the window proper. In stating the height of Blinds in this Class, it should be given from top of window-stool to top of transom-bar, or, if the transom-bar is a thick one, to a point about two inches above its lower edge.

Each set of Blinds (except in grades Nos. 4 and 5) is trimmed with hardware as follows:

One Flat Plate and Drop Handle No. 15, on the bottom rail of each of the four sections to pull the Blinds down with when they are up; two Lifting Plates, either No. 1 or No. 3, according to the arrangement of panels and slats, on the face side of every section.

The following details further illustrate the construction of the window-frame for this Class of Blind:

Columbian (weight-balanced) Sliding Blinds Nos. 1, 2 and 3. — Studding, 2 x 4, No. 1002; studding, 2 x 6, Nos. 1005, 1006 and 1014; brick walls, Nos. 1018 and 1024.

Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3. — Studding, 2 x 4, Nos. 201, 203, 208, 209, 214, 215, 220 and 224; studding, 2 x 6, Nos. 306, 307, 308, 309, 312, 313, 317, 318, 323 and 328; brick walls, Nos. 401, 402, 404, 406 and 408.

Common (spring-balanced) Sliding Blinds Nos. 4 and 5. — Studding, 2 x 4, No. 3; studding, 2 x 6, Nos. 13 and 14.

CLASS LJ.

Four Sections in Height. Guide-ways with Four Grooves. Transom Window with Bottom Pocket.

THIS CLASS consists of four sections of Blind, and, as its title would indicate, is a combination of Classes L and J. It is a window with a transom, and the Blind covers the window only up to the transom, as in Class L. The window is provided with a covered pocket at the bottom, into which all four sections of Blind slide, the same as in Class J. This pocket must be specially provided for by the architect and builder. The Guide-ways reach up to the top of the window, past the transom-bar, and extend into the bottom-pocket, the side-pieces mitreing with a head-piece across the top-jamb to make an even finish all around. Outside of the fact that the Blind covers the window only up to the transom, leaving the transom uncovered, this Class, as to construction of window-frame, etc., is treated identically the same as Class J. The hardware is the same as in Class J.

Note.—Where four sections of Blind in a similar window are intended to cover the entire window, including the transom; or where the Guide-ways can reach up to the transom-bar only, mitreing off with a head-piece across this transom-bar, the transom part of the window should be entirely ignored and the Blinds ordered Class J.

CLASS LK.

Four Sections in Height. Guide-ways with Four Grooves. Transom Window. Blinds slide down to Floor.

THIS CLASS consists of four sections of Blind, and, as its title would indicate, is a combination of Classes L and K. It is a window with a transom, and the Blind covers the window only up to the transom, as in Class L. The window is so arranged, that all four sections of Blind slide down to the floor, without the use of a pocket however, the same as in Class K. The Guide-ways reach up to the top of the window, past the transom-bar, and extend down to the floor, the side-pieces mitreing with a top-piece across the top-jamb to make an even finish all around. Outside of the fact that the Blind covers the window only up to the transom, leaving the transom uncovered, this Class, as to construction of window-frame, etc., is treated identically the same as Class K. The hardware is the same as in Class K.

Note.—Where four sections of Blind in a similar window are intended to cover the entire window, including the transom; or where the Guide-ways can reach up to the transom-bar only, mitreing off with a head-piece across this transom-bar, the transom part of the window should be entirely ignored and the Blinds ordered Class K.

CLASS LC.

Four Sections in Height. Guide-ways with Four Grooves. Transom Window with Top Pocket.

THIS CLASS consists of four sections of Blind, and, as its title would indicate, is a combination of Classes L and C. It is a window with a transom, and the Blind covers the window only up to the transom, as in Class L. The window is provided with a pocket at the top, into which all four sections of Blind slide, the same as in Class C. This pocket must be specially provided for by the architect and builder. The Guide-ways reach from the window-stool past the transom-bar into the top-pocket. Outside of the fact that the Blind covers the window only up to the transom, leaving the transom uncovered, this Class, as to construction of window-frame, etc., is treated identically the same as Class C. The hardware is the same as in Class C.

Note.—Where four sections of Blind in a similar window are intended to cover the entire window, including the transom, the transom part of the window should be entirely ignored and the Blinds ordered Class C.



Illustration of Class M.—(Copyrighted.)

ARRANGEMENT OF CLASSES FOR

WILLER'S SLIDING BLINDS.

CLASS M.

Three Sections in Height. Guide-ways with Three Grooves. Transom Window. No Pockets.

THIS CLASS consists of three sections of Blind to the window, arranged to cover only part of the window. The window is provided with a transom, and it is not desired that the transom be covered with the Blind. As will be noticed from the engraving, the Blind covers the lower portion of the window only, reaching up to the transom. The Guide-ways have three grooves each, one section of Blind sliding in each groove. The Guide-ways reach up to the top of the window, past the transom-bar, mitreing with an ungrooved head-piece across the top-jamb to make an even finish all around. It is supposed that the transom-bar in this Class is but a narrow one, and that the Guide-ways can be arranged to extend to the top of the window, so that all sections of Blind can be moved up to the top of the window in front of the transom, thereby entirely uncovering the lower part of the window, or, in this case, the window proper. In stating the height of Blinds in this Class, it should be given from top of window-stool to top of transom-bar, or, if the transom-bar is a thick one, to a point about two inches above its lower edge.

Each set of Blinds (except in grades Nos. 4 and 5) is trimmed with hardware as follows:

One Flat Plate and Drop Handle No. 15, on the bottom-rail of each of the three sections to pull the Blinds down with when they are up; two Lifting Plates, either No. 1 or No. 3, according to the arrangement of panels and slats, on the face side of every section.

The following details further illustrate the construction of the window-frame for this Class of Blind:

Columbian (weight-balanced) Sliding Blinds Nos. 1, 2 and 3. — Studding, 2 x 4; No. 1000; studding, 2 x 6, Nos. 1004, 1007 and 1013; brick walls, Nos. 1019 and 1025.

Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3. — Studding, 2 x 4; Nos. 200, 204, 206, 207, 212, 213, 219, 225, 240 and 241; studding, 2 x 6, Nos. 300, 301, 302, 311, 314, 319, 320, 322 and 329; brick walls, Nos. 400, 407, 409 and 411.

Common (spring-balanced) Sliding Blinds Nos. 4 and 5. — Studding, 2 x 4, No. 1; studding, 2 x 6, Nos. 15 and 16.

CLASS M H.

Three Sections in Height. Guide-Ways with Three Grooves. Transom Window with Bottom Pocket.

THIS CLASS consists of three sections of Blind, and, as its title would indicate, is a combination of Classes M and H. It is a window with a transom, and the Blind covers the window only up to the transom, as in Class M. The window is provided with a covered pocket at the bottom, into which all three sections of Blind slide, the same as in Class H. This pocket must be specially provided for by the architect and builder. The Guide-ways reach up to the top of the window, past the transom-bar, and extend into the bottom pocket, the side-pieces mitreing with a top-piece across the top-jamb to make an even finish all around. Outside of the fact that the Blind covers the window only up to the transom, leaving the transom uncovered, this Class, as to construction of window-frame, etc., is treated identically the same as Class H. The hardware is the same as in Class H.

Note.—Where three sections of Blind in a similar window are intended to cover the entire window, including the transom; or where the Guide-ways can reach up to the transom-bar only, mitreing off with a head-piece across this transom-bar, the transom part of the window should be entirely ignored, and the Blinds ordered Class H.

CLASS M I.

Three Sections in Height. Guide-Ways with Three Grooves. Transom Window. Blinds slide down to Floor.

THIS CLASS consists of three sections of Blind, and, as its title would indicate, is a combination of Classes M and I. It is a window with a transom, and the Blind covers the window only up to the transom, as in Class M. The window is so arranged, that all three sections of Blind slide down to the floor, without the use of a pocket however, the same as in Class I. The Guide-ways reach up to the top of the window, past the transom-bar, and extend down to the floor, the side-pieces mitreing with a top-piece across the top-jamb to make an even finish all around. Outside of the fact that the Blind covers the window only up to the transom, leaving the transom uncovered; this Class, as to construction of window-frame, etc., is treated identically the same as Class I. The hardware is the same as in Class I.

Note.—Where three sections of Blind in a similar window are intended to cover the entire window, including the transom; or where the Guide-ways can reach up to the transom-bar only, mitreing off with a head-piece across this transom-bar, the transom part of the window should be entirely ignored and the Blinds ordered Class I.

CLASS M T.

Three Sections in Height. Guide-Ways with Three Grooves. Transom Window with Top Pocket.

THIS CLASS consists of three sections of Blind, and, as its title would indicate, is a combination of Classes M and T. It is a window with a transom, and the Blind covers the window only up to the transom, as in Class M. The window is provided with a pocket at the top, into which all three sections of Blind slide, the same as in Class T. This pocket must be specially provided for by the architect and builder. The Guide-ways reach from the window-stool past the transom-bar into the top-pocket. Outside of the fact that the Blind covers the window only up to the transom, leaving the transom uncovered, this Class, as to construction of window-frame, etc., is treated identically the same as Class T. The hardware is the same as in Class T.

Note.—Where three sections of Blind in a similar window are intended to cover the entire window, including the transom, the transom part of the window should be entirely ignored and the Blinds ordered Class T.



Illustration of Class N.—(Copyrighted.)

ARRANGEMENT OF CLASSES FOR

WILLER'S SLIDING BLINDS.

CLASS N.

Four Sections in Height. Guide-Ways with Four Grooves.
Jib Window. Blinds slide down to Floor.

THIS CLASS consists of four sections of Blind to the window, arranged in such a manner that all four sections slide down to the floor. The window is one that reaches down to the floor, and the Blind covers the entire window from floor to top-jamb. The Guide-ways have four grooves each, and reach from floor to top-jamb, mitreing with an ungrooved head-piece across the top-jamb to make an even finish all around. One section of Blind slides in each groove. Three-quarters of the window can be uncovered by sliding all four sections either to the top or bottom part of the window. In the accompanying engraving we show the front or first section as containing all solid panels, the balance of the sections a combination of panels and slats. By solidly panelling the front section, this section forms a protection for the balance of the sections when all are drawn down to the floor, as well as giving the whole more the appearance of a panelled front.

Each set of Blinds (except in grades Nos. 4 and 5) is trimmed with hardware as follows:

One Flat Plate and Drop Handle No. 15, on the bottom-rail of each of the four sections to pull the Blinds down with when the are up; two Lifting Plates, either No. 1 or No. 3, according to the arrangement of panels and slats, on the face side of every section. One Concave Plate and Drop Handle No. 16, on the top rail of each of the four sections to lift the same up with when they are down to the floor.

The following details further illustrate the construction of the window-frame for this Class of Blind, leaving out all window-stools where any are shown:

Columbian (weight-balanced) Sliding Blinds Nos. 1, 2 and 3. — Studding, 2 x 4, No. 1002; studding, 2 x 6, Nos. 1005, 1006 and 1014; brick walls, Nos. 1018 and 1024.

Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3. — Studding, 2 x 4, Nos. 201, 203, 208, 209, 214, 215, 220, 222, 224 and 227; studding, 2 x 6, Nos. 306, 307, 308, 309, 312, 313, 317, 318, 323, 326, 328 and 331; brick walls, Nos. 401, 402, 404, 406 and 408.

Common (spring-balanced) Sliding Blinds Nos. 4 and 5. — Studding, 2 x 4, Nos. 3 and 4; studding, 2 x 6, Nos. 7, 8, 13 and 14.



Illustration of Class O.—(Copyrighted.)

ARRANGEMENT OF CLASSES FOR

WILLER'S SLIDING BLINDS.

CLASS O.

Four Sections in Height. Guide-Ways with Four Grooves.
Jib Window. Top Pocket Only.

THIS CLASS consists of four sections of Blind to the window, arranged in such a manner that all four sections go into a top pocket, which pocket must be specially provided for this purpose by the architect and builder. The window is one that reaches down to the floor, and the Blind covers the entire window from floor to top-jamb. The Guide-ways have four grooves each, and extend from floor up into the top-pocket. One section of Blind slides in each groove. The entire window can be uncovered by sliding all four sections into the top-pocket. In the accompanying engraving we show the front or first section as containing all solid panels, the balance of the sections a combination of panels and slats. By solidly panelling the front section, this section forms a protection for the balance of the sections when all are drawn down to the floor, as well as giving the whole more the appearance of a panelled front.

Each set of Blinds (except in grades Nos. 4 and 5) is trimmed with hardware as follows:

One Flat Plate and Drop Handle No. 15, on the bottom rail of each of the four sections to pull the Blinds down with when they are up; two Lifting Plates, either No. 1 or No. 3, according to the arrangement of panels and slats, on the face side of every section. One Concave Plate and Drop Handle No. 16, on the top-rail of each of the four sections to lift the same up with when they are down to the floor.

The following details further illustrate the construction of the window frame for this Class of Blind, leaving out all window-stools where any are shown:

Columbian (weight-balanced) Sliding Blinds Nos. 1, 2 and 3. — Studding, 2 x 4, No. 1002; studding, 2 x 6, Nos. 1005, 1006, and 1014; brick walls, Nos. 1018 and 1024.

Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3. — Studding, 2 x 4, Nos. 201, 203, 208, 209, 214, 215, 220, 222, 224 and 227; studding, 2 x 6, Nos. 306, 307, 308, 309, 312, 313, 317, 318, 323, 326, 328 and 331; brick walls, Nos. 401, 402, 404, 406 and 408.

Common (spring-balanced) Sliding Blinds Nos. 4 and 5.— Studding, 2 x 4, Nos. 3 and 4; studding, 2 x 6, Nos. 7, 8, 13 and 14.



Illustration of Class P.—(Copyrighted.)

ARRANGEMENT OF CLASSES FOR

WILLER'S SLIDING BLINDS.

CLASS P.

Four Sections in Height. Guide-Ways with Two Grooves.
Blinds slide down to Floor.

THIS CLASS consists of four sections of Blind to the window, arranged in such a manner that two sections slide down to the floor below the window-sill, without however employing any pocket for that purpose, whereas the other two sections remain within the space of the window-opening. The Guide-ways extend from floor to top-jamb and have but two grooves each, two sections of Blind sliding in one groove. An ungrooved head-piece is furnished to go across the top-jamb and mitre with the side-pieces to make an even finish all around. By sliding two sections down to the floor, three-quarters of the window can be uncovered, producing the same results as in Class D, with but a two-grooved Guide-way instead of a four-grooved one. In the accompanying engraving we show the front or first section as containing all solid panels, the balance of the sections a combination of panels and slats. By solidly panelling the front section, this section forms a protection for the balance of the sections when all are down to the floor, as well as giving the whole more the appearance of a panelled front.

Each set of Blinds (except in grades Nos. 4 and 5) is trimmed with hardware as follows:

One Flat Plate and Drop Handle No. 15, on the bottom rail of each of the four sections to pull the Blinds down with when they are up; two Lifting Plates, either No. 1 or No. 3, according to the arrangement of panels and slats, on the face side of each section. One Concave Plate and Drop Handle No. 16, on the top-rail of each of the two sections going down to the floor, to lift the same up with when they are down to the floor.

The following details further illustrate the construction of the window-frame for this Class of Blind, leaving out all window-stools where any are shown:

Columbian (weight-balanced) Sliding Blinds Nos. 1, 2 and 3. — Studding, 2 x 4, No. 1001; studding, 2 x 6, Nos. 1003, 1008 and 1012; brick walls, Nos. 1020 and 1026.

Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3. — Studding, 2 x 4, Nos. 202, 205, 210, 211, 216, 217, 223 and 229; studding, 2 x 6, Nos. 303, 304, 305, 310, 315, 316, 321, 327 and 333; brick walls, Nos. 403, 405 and 410.

Common (spring-balanced) Sliding Blinds Nos. 4 and 5. — Studding, 2 x 4, No. 5; studding, 2 x 6, Nos. 11 and 12.

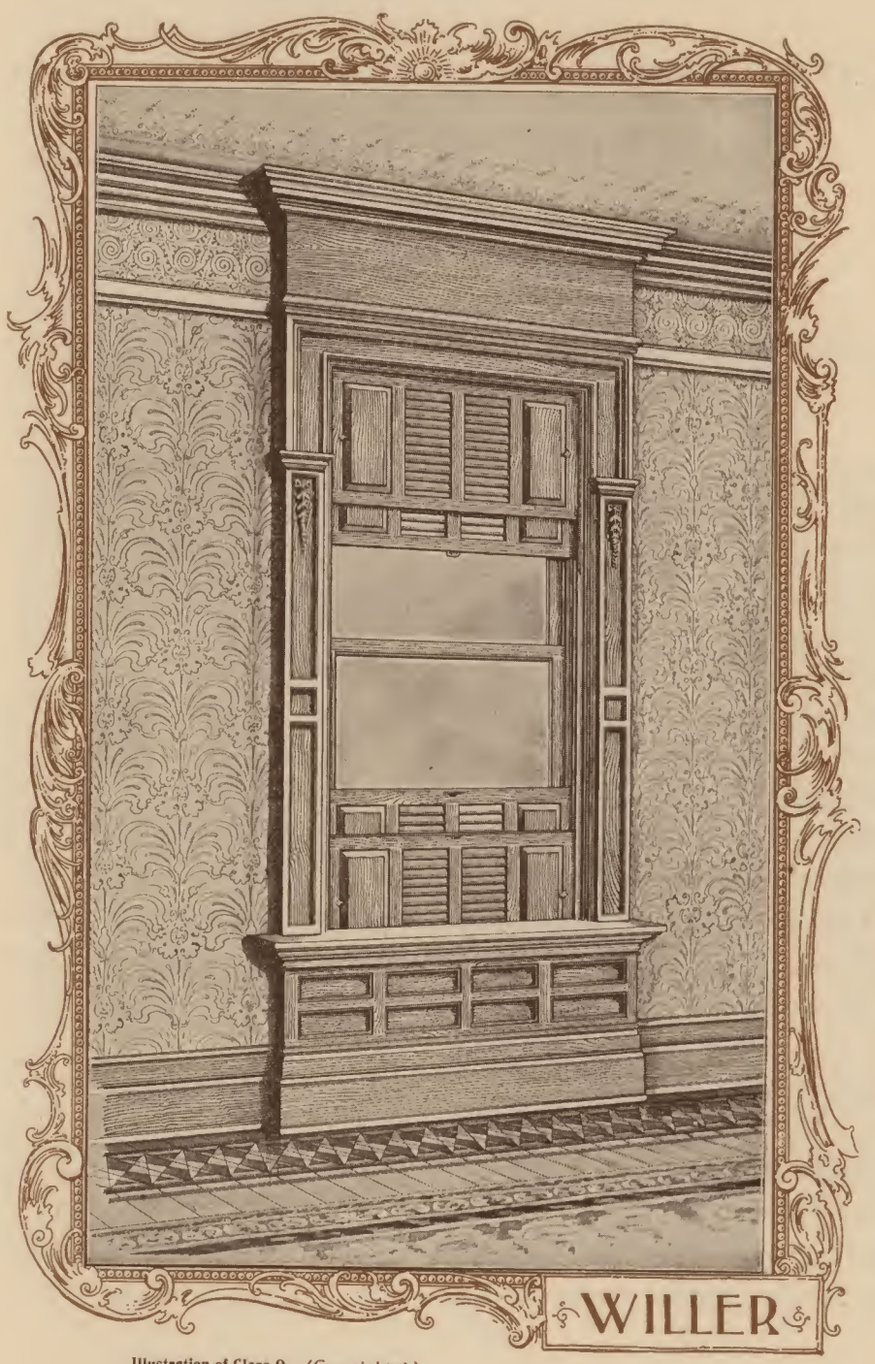


Illustration of Class Q.—(Copyrighted.)

ARRANGEMENT OF CLASSES FOR

WILLER'S SLIDING BLINDS.

CLASS Q.

Four Sections in Height. Guide-Ways with Two Grooves. Bottom Pocket Only.

THIS CLASS consists of four sections of Blind to the window, arranged in such a manner that two sections slide into a lower pocket, which pocket must be specially provided for this purpose by the architect and builder, whereas the other two sections remain within the space of the window opening. The Guide-ways extend from floor to top-jamb and have but two grooves each, two sections of Blind sliding in one groove. An ungrooved head-piece goes across the top-jamb and mitres with the side-pieces to make an even finish all around. By sliding two sections into the lower pocket, three-quarters of the window can be uncovered, producing the same results as in Class D, with but a two-grooved Guide-way instead of a four-grooved one. The lower pocket should be covered with our new Hinged Window-Stool, illustrated and described elsewhere in this catalogue, and which must also be provided for by the architect and builder.

Each set of Blinds (except in grades Nos. 4 and 5) is trimmed with hardware as follows:

One Flat Plate and Drop Handle No. 15, on the bottom rail of each of the four sections to pull the Blinds down with when they are up; two Lifting Plates, either No. 1 or No. 3, according to the arrangement of panels and slats, on the face side of every section; one Concave Plate and Drop Handle No. 16, on the top rail of each of the two sections going into the lower pocket to lift the same out of the pocket with.

The following details further illustrate the construction of the window-frame for this Class of Blind:

Columbian (weight-balanced) Sliding Blinds Nos. 1, 2 and 3. — Studding, 2 x 6, Nos. 1011 and 1017; brick walls, Nos. 1023 and 1029.

Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3. — Studding, 2 x 4, Nos. 234 and 235; studding, 2 x 6, Nos. 338 and 339; brick walls, No. 414.



Illustration of Class R.—(Copyrighted)

ARRANGEMENT OF CLASSES FOR

WILLER'S SLIDING BLINDS.

CLASS R.

Two Sections in Height. Guide-Ways with Two Grooves.
Bottom Pocket Only.

THIS CLASS consists of two sections of Blind to the window, arranged in such a manner that both sections slide into a lower pocket, which pocket must be specially provided for this purpose by the architect and builder. The Guide-ways extend from top-jamb into lower pocket and have but two grooves each, one section of Blind sliding in each groove. An ungrooved head-piece goes across the top-jamb and mitres with the side-pieces to make an even finish all around. The entire window can be uncovered by sliding both sections into the lower pocket. This pocket should be covered with our new Hinged Window-Stool, illustrated and described elsewhere in this catalogue, and which must also be provided for by the architect and builder.

Each set of Blinds (except in grades Nos. 4 and 5) is trimmed with hardware as follows:

One Flat Plate and Drop Handle No. 15, on the bottom rail of each of the two sections to pull the Blinds down with when they are up; two Lifting Plates, either No. 1 or No. 3, according to the arrangement of panels and slats, on the face side of every section; one Concave Plate and Drop Handle No. 16, on the top rail of each of the two sections to lift the same out of the pocket with.

The following details further illustrate the construction of the window-frame for this Class of Blind:

Columbian (weight-balanced) Sliding Blinds, Nos. 1, 2 and 3.— Studding, 2 x 6, Nos. 1011 and 1017; brick walls, Nos. 1023 and 1029.

Standard (spring-balanced) Sliding Blinds, Nos. 1, 2 and 3.— Studding, 2 x 4, Nos. 234 and 235; studding, 2 x 6, Nos. 338 and 339; brick walls, No. 414.



Illustration of Class S.—(Copyrighted.)

ARRANGEMENT OF CLASSES FOR

WILLER'S SLIDING BLINDS.

CLASS S.

Two Sections in Height. Guide-Ways with Two Grooves.
Top Pocket Only.

THIS CLASS consists of two sections of Blind to the window, arranged in such a manner that both sections slide into a top pocket, which pocket must be specially provided for this purpose by the architect and builder. The Guide-ways extend from window-stool into the top pocket and have but two grooves each, one section of Blind sliding in each groove. The entire window can be uncovered by sliding both sections into the top pocket.

Each set of Blinds (except in grades Nos. 4 and 5) is trimmed with hardware as follows:

One Flat Plate and Drop Handle No. 15, on the bottom rail of each of the two sections to pull the Blinds down with when they are up; two Lifting Plates, either No. 1 or No. 3, according to the arrangement of panels and slats, on the face side of every section.

The following details further illustrate the construction of the window-frame for this Class of Blind:

Columbian (weight-balanced) Sliding Blinds, Nos. 1, 2 and 3. — Studding, 2 x 4, No. 1001; studding, 2 x 6, Nos. 1003, 1008 and 1012; brick walls, Nos. 1020 and 1026.

Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3. — Studding, 2 x 4, Nos. 202, 205, 210, 211, 216, 217, 218 and 226; studding, 2 x 6, Nos. 303, 304, 305, 310, 315, 316, 321, 324 and 330; brick walls, Nos. 403, 405 and 410.

Common (spring-balanced) Sliding Blinds Nos. 4 and 5. — Studding, 2 x 4, No. 2; studding, 2 x 6, Nos. 17 and 18.



Illustration of Class T.—(Copyrighted.)

ARRANGEMENT OF CLASSES FOR

WILLER'S SLIDING BLINDS.

CLASS T.

Three Sections in Height. Guide-Ways with Three Grooves. Top Pocket Only.

THIS Class consists of three sections of Blind to the window, arranged in such a manner that all three sections slide into a top pocket, which pocket must be specially provided for this purpose by the architect and builder. The Guide-ways extend from window-stool into the top pocket and have three grooves each, one section of Blind sliding in each groove. The entire window can be uncovered by sliding all three sections into the top pocket.

Each set of Blinds (except in grades Nos. 4 and 5) is trimmed with hardware as follows:

One Flat Plate and Drop Handle No. 15, on the bottom rail of each of the three sections to pull the Blinds down with when they are up; two Lifting Plates, either No. 1 or No. 3, according to the arrangement of panels and slats, on the face side of every section.

The following details further illustrate the construction of the window-frame for this Class of Blind:

Columbian (weight-balanced) Sliding Blinds Nos. 1, 2 and 3. — Studding, 2 x 4, No. 1000; studding, 2 x 6, Nos. 1004, 1007 and 1013; brick walls, Nos. 1019 and 1025.

Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3. — Studding, 2 x 4, Nos. 200, 204, 206, 207, 212, 213, 219, 225, 240 and 241; studding, 2 x 6, Nos. 300, 301, 302, 311, 314, 319, 320, 322 and 329; brick walls, Nos. 400, 407, 409 and 411.

Common (spring-balanced) Sliding Blinds Nos. 4 and 5. — Studding, 2 x 4, No. 1; studding, 2 x 6, Nos. 15 and 16.

Willer's Columbian (weight-balanced) Sliding Blinds Nos. 1, 2 and 3, and Willer's Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3.

EXACT HEIGHT OF EACH SECTION IN ABOVE BLINDS.

THE exact height of each section of Blind is governed by the number of slats used in each section. We make the width of top and bottom rails always the same in all sections, and the slats used are each an equal distance apart. One window may be an inch or two higher than another, and still the height of each section in both windows would be the same. In one case the different sections would overlap each other a little more or less than in the other. According to the rule adopted by us for regulating the height of each section, as printed below, none of the sections overlap each other less than one inch nor more than two and one-eighth inches, varying according to the height of the window. In no case can we recede from this rule.

For Classes of Blinds Three Sections to a Window.

EXACT HEIGHT OF SECTION	COVERING A WINDOW
16½ inches	from 3.8¾ to 3.11½ in height.
17⅜ "	" 3.11⅜ to 4.2⅛ "
18¼ "	" 4.2¼ to 4.4¾ "
19⅛ "	" 4.4⅞ to 4.7⅜ "
20 "	" 4.7½ to 4.10 "
20⅞ "	" 4.10⅛ to 5.0⅝ "
21¾ "	" 5.0¾ to 5.3¼ "
22⅝ "	" 5.3⅜ to 5.5⅞ "
23½ "	" 5.6 to 5.8½ "
24⅜ "	" 5.8⅝ to 5.11⅛ "
25¼ "	" 5.11¼ to 6.1¾ "
26⅛ "	" 6.1⅞ to 6.4⅜ "
27 "	" 6.4½ to 6.7 "
27⅞ "	" 6.7⅛ to 6.9⅝ "
28¾ "	" 6.9¾ to 7.0¼ "
29⅝ "	" 7.0⅜ to 7.2⅞ "
30½ "	" 7.3 to 7.5½ "
31⅜ "	" 7.5⅝ to 7.8⅛ "
32¼ "	" 7.8¼ to 7.10¾ "
33⅛ "	" 7.10⅞ to 8.1⅜ "
34 "	" 8.1½ to 8.4 "
34⅞ "	" 8.4⅛ to 8.6⅝ "
35¾ "	" 8.6¾ to 8.9¼ "
36⅝ "	" 8.9⅜ to 8.11⅞ "

For Classes of Blinds Four Sections to a Window.

EXACT HEIGHT OF SECTION	COVERING A WINDOW
13 inches	from 3.9⅝ to 4.1 in height.
13⅞ "	" 4.1⅛ to 4.4½ "
14¾ "	" 4.4⅝ to 4.8 "
15⅝ "	" 4.8⅛ to 4.11½ "
16½ "	" 4.11⅝ to 5.3 "
17⅜ "	" 5.3⅛ to 5.6½ "
18¼ "	" 5.6⅝ to 5.10 "
19⅛ "	" 5.10⅛ to 6.1½ "
20 "	" 6.1⅝ to 6.5 "
20⅞ "	" 6.5⅛ to 6.8½ "
21¾ "	" 6.8⅝ to 7.0 "
22⅝ "	" 7.0⅛ to 7.3½ "
23½ "	" 7.3⅝ to 7.7 "
24⅜ "	" 7.7⅛ to 7.10½ "
25¼ "	" 7.10⅝ to 8.2 "
26⅛ "	" 8.2⅛ to 8.5½ "
27 "	" 8.5⅝ to 8.9 "
27⅞ "	" 8.9⅛ to 9 0½ "
28¾ "	" 9.0⅝ to 9.4 "
29⅝ "	" 9.4⅛ to 9.7½ "
30½ "	" 9.7⅝ to 9.11 "

Above measurements are based on the NET size of opening covered by the Blind. Where a head-piece is used across the top of window, deduct thickness of head-piece from height given on order, and calculate height of each section accordingly.

From the above table you will be enabled to fasten the wooden blocks at the proper places in the grooves to prevent the blinds from going any further into the pockets than necessary. It is also of service for calculating sizes of pockets required, and for placing the window-sill at the proper height from floor in cases where blinds are to slide down to floor.

Which Class or Classes are Best Adapted for My House, and How Should My Window Frames be Constructed?

THESE questions are often put before us by people building and others, which we however cannot intelligently answer unless we are also made thoroughly acquainted with all the circumstances and conditions connected with the building. One of the main conditions to be considered is the construction of the building. Any one of the Classes can be adapted to any form of construction, as is fully shown and demonstrated by our Details of Window-Frames published in this Catalogue; it is evident however, that a Class requiring four sections of Blind and a four-grooved guide-way and a pocket, as for instance Class J, can best and without much additional expense be arranged in a house having sufficiently thick walls: a stone or brick building, or a wooden building with 2x6 or 2x8 studding. In a wooden building, having walls built of 2x4 studding only, most of the Classes require a "boxing out" of the inside casings or trim.

There is really no sufficiently satisfactory reason, either from an economical or practical standpoint, why a good wooden dwelling should be built with wall-studding as narrow as 2x4 inches; it makes the walls too weak to thoroughly withstand the force of the wind and storms, and provides for so little space on the window-jamb, that neither Folding Blinds, Shades, Screens nor any other modern conveniences can satisfactorily be applied thereto.

We therefore strongly urge the use of 2x6 or 2x8 studding, which will provide, with but little extra expense, plenty of space for the adoption of any of the Classes of Sliding Blinds described herein, as well as any other form of Blind, Screen or Shade, or a combination of both Blinds and Shades.

Each particular Class of Blinds has some peculiar feature and merit of its own, and while none possesses any particular fault, some have more merit than others. In dividing our Sliding Blinds into so many Classes, our principal object is to show in how many different ways and in what variety they can be applied, and how we can adapt ourselves to existing circumstances and conditions and to the individual tastes and requirements of the purchaser.

From our own standpoint we therefore have no reason to recommend any particular Class, except to make a few remarks in a general

way. Where perfection of arrangement is the first and main consideration, the Classes provided with pockets to entirely uncover the window (as for instance, Classes H and J, where all sections slide into a lower covered pocket) would undoubtedly be the most advisable to use, especially for the main rooms of the house. For all ordinary purposes however, for chambers and other rooms, and for all rooms in a house where the extra cost of providing the windows with pockets is an item for serious consideration, the Classes without pockets, as for instance Classes D and E, will be found to give perfect satisfaction. It must be borne in mind that the necessity of *entirely* uncovering a window for the admission of light is a rare occurrence in a residence, and can at times exist only in a few main rooms, and that almost all windows in a house, even though provided with ready means for entirely uncovering them, are always more or less covered by the Blinds; one only needs to walk the residence streets to make this observation. As to the number of sections required for a window, this is governed by the height of the window; windows 4 to 7½ feet in height, should have 3 sections, and those over 7½ feet, 4 sections to the window; under 4 feet, 2 sections are sufficient.

In conclusion, a few remarks regarding the construction of window-frames and our Details for same are here appropriate. All window-frames, whether for a frame or brick building, should be made "box-frames," and should be provided with outside casings, 1⅛ inch thick, with ⅞ inch space between the outside sash and casings. This provides means for the proper application of sliding or stationary outside window-screens, outside blinds and storm-sash. The trifling additional expense of providing "box-frames" even for frame buildings, is more than outbalanced by the additional security given the window against entrance of cold, and the always-in-better-shape-remaining qualities of the jambs, a very important matter in windows provided with Sliding Blinds or Screens. Where jambs are sprung or bent out of shape, it cannot be expected that either Blinds or Screens will slide satisfactorily.

Woods and Finishes for Sliding Blinds.

WE FURNISH all our Sliding Blinds finished—varnished or oil-finished—and do not furnish any of them "in the white." We have better facilities for doing this work than the average painter, and as we buy our material in large quantities, can purchase a better grade of goods at prices paid by others for inferior grades.

We first fill the pores of the wood with a wood-filler and then cover the Blinds with a superior grade of coach varnish. We supply the following three grades of Finishes: first, **Plain Finish,** meaning a plain varnished surface, not rubbed; second, **Cabinet Finish,** meaning a Plain Finish, afterwards rubbed down with pumice-stone and oil to a smooth dead finish; third, **Polished Finish,** meaning a Cabinet Finish with a polished high-lustre surface. The grade of material is the same in all three Finishes.

We finish the blinds in the natural color of the wood, or we stain them in imitation of other woods. Poplar or white-wood is the most suitable wood for Blinds stained in imitation of light, medium or dark cherry; light, medium or dark mahogany, and for Blinds stained in imitation of walnut.

Oak we generally stain antique in two shades—antique umber and antique black. Oak can be stained any shade by simply coloring the wood-filler. Any other stain or finish can be supplied by us if we are furnished with a sample of the finish required.

The wood and finish of a set of blinds should as a rule correspond with that used in the woodwork of the room in which the blind is to be used. It is also however not out of place to make all of the blinds in a house of one kind of wood, giving all windows the same appearance from the outside. This is especially desirable where one wishes or is obliged to economize.

Norway or Hard Pine.

IN ALL cases, unless distinctly otherwise specified, we use our native Wisconsin or Michigan Norway, where orders call for blinds made of Yellow Pine, Georgia Pine or Southern Pine. Norway is much better suited for the purpose; it has about the same grain and texture as the Southern woods, is lighter in weight and color, and, as it does not contain near so much pitch or resin, is more susceptible to varnish and a more lasting finish is thereby obtained. Norway shows more grain than White Pine, and is therefore a most suitable wood to use instead, especially where wood-work in room is painted or grained.

We do not advise grained or painted finish on blinds having Rolling Slats of any kind, as the thick paint will make such slats bind and stick; all such blinds should be stained or finished in the natural color of the wood, preferably the latter.

Our Prices on Sliding Blinds

are based upon the following conditions:—1st, the size of window; 2nd, the kind and grade of Blinds; 3d, the number of sections in height per window; 4th, the number of divisions in width; 5th, the kind of wood, and 6th, the grade of finish wanted.

Sliding Blinds are figured per lineal foot in height; fractions of an inch are counted as one inch. For height we figure the space occupied by the Blinds in the window, as given in the order, and do not include the over-lapping of the different sections.

The prices always include the finishing of the Blinds, the hardware and the necessary Guide-ways in which the Blinds slide. In Columbian (weight-balanced) Sliding Blinds, they also include the pulleys, cords and lead weights.

Rule Governing the Number of Divisions in Width.

The gross minimum width, including stiles and mullions, of each division of panels or slats, is 6 inches, and the maximum width, 10 inches. Blinds ordered two Divisions in width, must not be over 20 inches wide; three Divisions, not over 30 inches; four Divisions, not over 40 inches, etc., between the face surfaces of Guide-ways. Blinds 40 inches wide will not be made less than four Divisions in width, but may be ordered five Divisions and six Divisions in width, but not over six Divisions, as in that case each Division would be less than 6 inches wide. A set of Blinds will look best if the gross width of each Division is from 7 to 9 inches. The net width of each Division, between the edges of stiles and mullions, is from 2 to 2½ inches less than the gross width. The above rule is strictly adhered to by us in all cases.

Concerning the Number of Sections in Height

to a window, we have not established any definite rule. This is regulated by the height of the window, and the width of space at disposal on the jambs of the window-frame. It is well however to arrange the number of sections in such a manner that each section will not be over say 30 inches in height. A window from 5 to 7½ feet in height will look best if covered with three sections of Blinds, and a window over 7½ feet in height, if covered with four sections of Blinds.

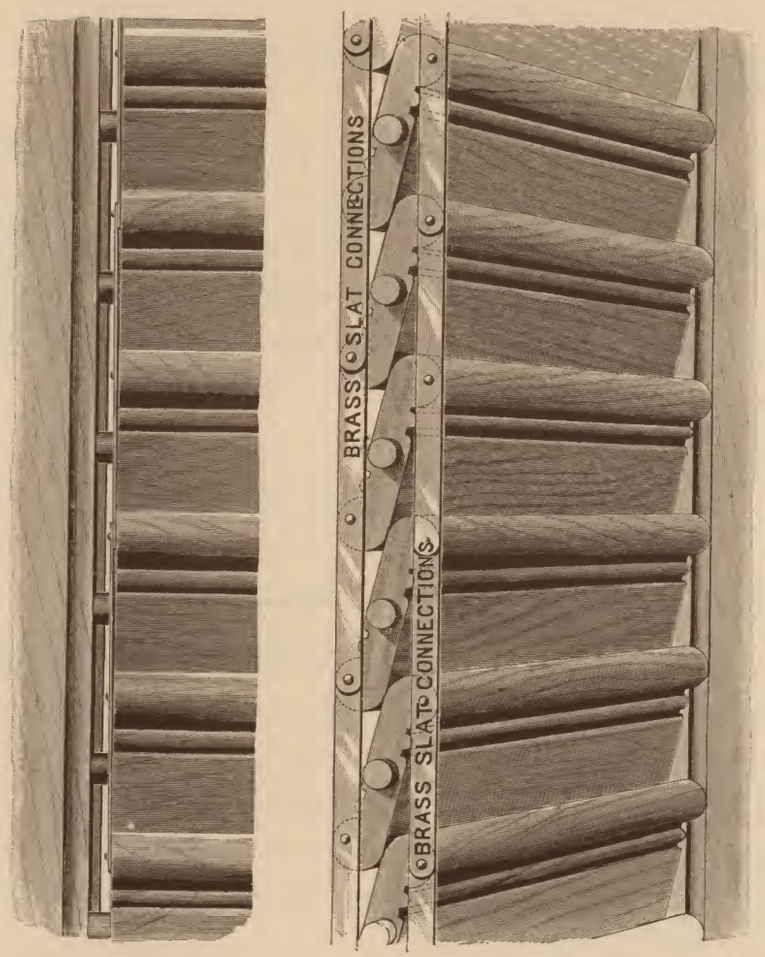


Fig. 1.

WILLER'S PATENT ROLLING SLATS.

Patented February 10th, 1885.

Above illustrates our system of operating Rolling Slats in blinds, without the usual wooden rod in front of the slats. The slats are connected by brass strips and pins attached to the ends of slats on both sides of the blind. The slats, being thereby perfectly balanced, remain in any position desired, and light can be admitted through the slats at any angle. By the use of this system, we are enabled to put Rolling Slats in any one or in all sections of sliding blinds, the absence of the wooden rod allowing all sections to freely pass each other, even though in close proximity to each other, a feature that has permanently established the fame of Willer's Sliding Blinds at the start.

This system of slats is used only in Columbian and Standard Sliding Blinds Nos. 1 and 2, and in our Patent Folding Blinds.

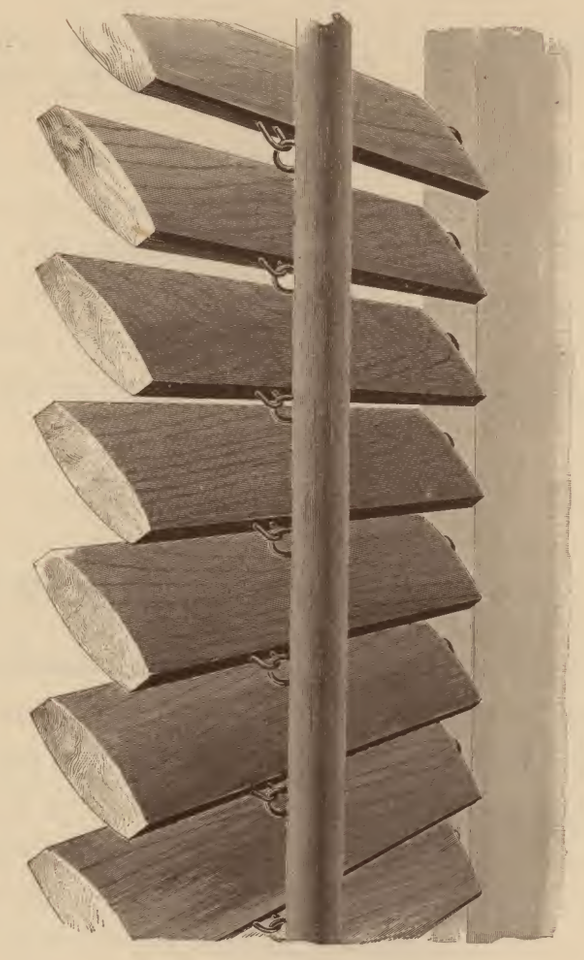


Fig. 2.

WILLER'S REGULAR ROLLING SLATS.

Above illustrates the Regular Rolling Slats as ordinarily used by all manufacturers of Inside Folding Blinds.

The above cut particularly illustrates the shape and size as we use them in Willer's Common (spring-balanced) Sliding Blind No. 4, ½ inch thick, the only grade of Sliding Blind in which we use them, and then only in one section of the entire set of blinds, the projecting wooden rod preventing the use of these slats in the other sections.

We also use these Regular Rolling Slats in our Regular Folding Blinds Nos. 1 and 2. In these blinds, however, they being ⅞ and 1⅛ inch thick, we use a larger sized slat, a full-size section of which is shown in the Department of Folding Blinds.



Fig. 3.

WILLER'S OPEN STATIONARY SLATS.

The above illustrates our system of Open Stationary Slats as used by us only in Willer's Columbian and Standard Sliding Blinds No. 1, Willer's Patent Folding Blind and Willer's Regular Folding Blind No. 1. The above cut particularly shows shape and size of the slats as we use them in the Sliding Blinds, which are ⅝ in. thick. In Folding Blinds, which are ⅞ and 1⅛ in. thick, we use a larger slat and set them at a different angle, full-size sections of which are shown in the Department of Folding Blinds. The ends of slats are permanently fixed into grooves specially provided for them in the rails of the blind. These are the same style of slats as are in common use on the car-blinds of the railways.



Fig. 4.

WILLER'S CLOSED STATIONARY SLATS.

The above illustrates our system of Closed Stationary Slats as used by us in Willer's Columbian and Standard No. 3, and Common Nos. 4 and 5 Sliding Blinds, and in Willer's Regular Folding Blinds Nos. 2 and 3. The above cut particularly illustrates the use of the slats in Common Sliding Blinds Nos. 4 and 5, being ½ in. thick and having square edges. Our Columbian and Standard Sliding Blinds No. 3, being ⅝ in. thick, have a cove edge all around the slats. Folding Blinds, being ⅞ and 1⅛ in. thick, have moulded edges all around the slats, as shown by full-size sections in the Department of Folding Blinds. The slats are moulded out of a solid board, and when in the blind, are permanently closed.



Flat Plate and Drop Handle, No. 15.



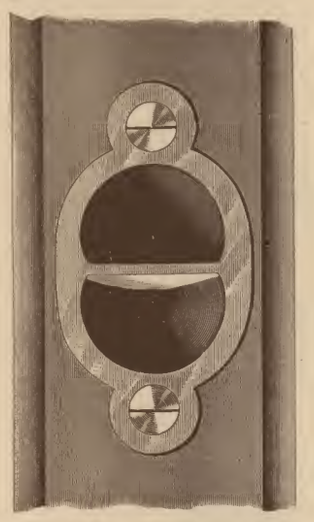
Concave Plate and Drop Handle, No. 16.

STANDARD HARDWARE

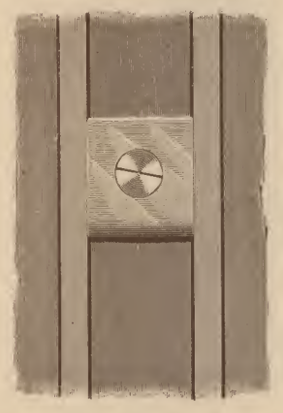
FOR

WILLER'S COMMON SLIDING BLINDS NOS. 4 AND 5.

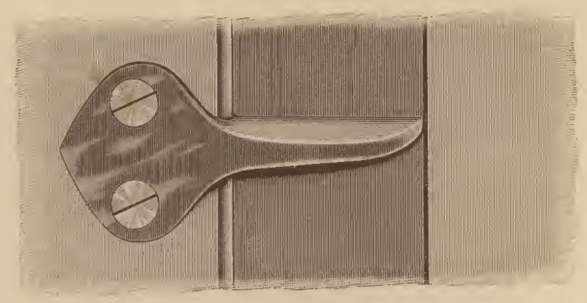
For full description, see next page.



Lifting Plate, No. 1.



Stop Block, No. 17.



Lifting Plate, No. 3.

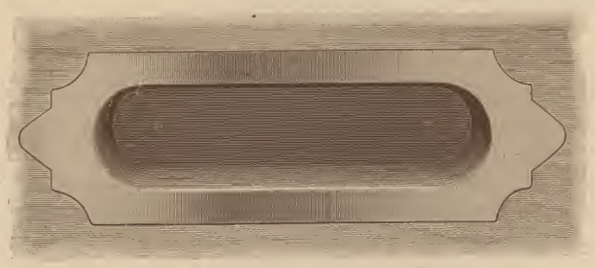
STANDARD HARDWARE

(Patented)

FOR

WILLER'S COLUMBIAN AND STANDARD SLIDING BLINDS NOS. 1, 2 AND 3.

For full description, see next page.



Lifting Plate, No. 8.



Lifting Plate, No. 5.

HARDWARE FOR

WILLER'S COLUMBIAN AND STANDARD SLIDING BLINDS NOS. 1, 2 and 3.

See Illustrations on preceding page.

Flat Plate and Drop Handle, No. 15. — This is attached to the bottom-rail of every section of these Blinds. For all ordinary sized windows, one is used in the centre of each section; for windows over 4½ feet wide, we apply two. When a section is at the top of the window, it is readily drawn down by the handle, and when the section is brought down on the window-sill, the handle slides back into the mortise, out of sight.

Concave Plate and Drop Handle, No. 16. — This is attached to the top-rail of all such sections of Blinds, which go into a bottom pocket, or which slide down to the floor. The handle is readily drawn out of its recess to lift up the section of Blind with.

Lifting Plate, No. 1. — This we attach to the inside face of all such sections of Blinds, which contain all Rolling Slats or all Open Stationary Slats.

Lifting Plate, No. 3. — This we attach to the inside face of all such sections of Blinds, which contain either Flat or Raised Panels or Closed Stationary Slats in their outside Divisions.

For description and illustration of **Willer's Bottom-Rail Blind Lift,** which can also be used on above Blinds, see page 19.

Stop Block, No. 17. — This is screwed in the grooves of the Guide-ways to stop the different sections of Blinds at their proper places. It is of service only in Classes of Blinds provided with pockets, and even in such cases it is not actually necessary. We therefore do not furnish it except upon special order at a net charge of 25 cents per window in iron and 50 cents in bronze or any other finish. Two pieces are required for every section of Blind in a window except one.

The Standard Finish of above hardware is Polished Natural Bronze (light) for Blinds No. 1, and Iron, Boston or Berlin Bronze Finish, for Blinds Nos. 2 and 3.

We also supply this hardware in any other finish, and, where necessary, will furnish same to match the hardware of the room. The following special finishes we carry in stock and can supply at any time:

Bronze, Antique Copper Finish.
Brass, Oxidized Antique Finish.
Bronze, Oxidized Silver Finish.
Iron, Bower-Barff or Blue-Black Finish.

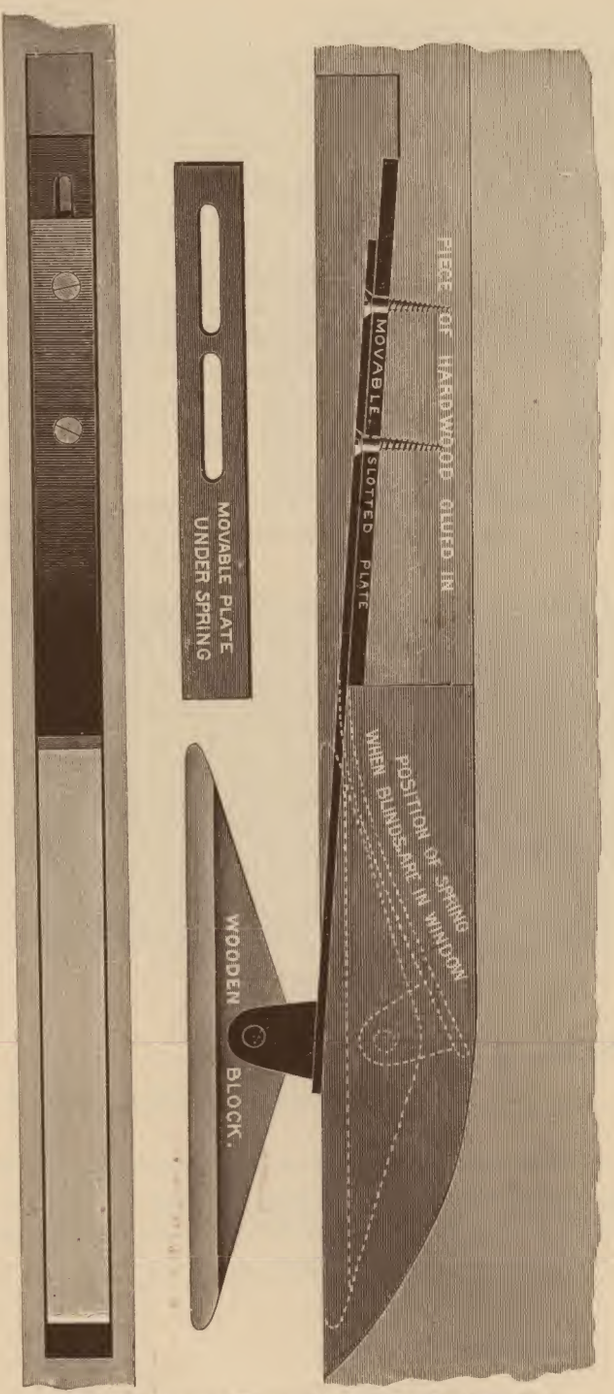
HARDWARE FOR

WILLER'S COMMON SLIDING BLINDS NOS. 4 and 5.

See Illustrations on preceding page.

Lifting Plate, No. 5. — This is stamped out of light sheet bronze and is the only piece of hardware that is included in the price of these Blinds. Two pieces are attached to the inside face of every section of Blind. In addition to this, Lifting Plate No. 8 may be used, for which see remarks opposite.

Lifting Plate, No. 8. — This is also stamped out of light sheet bronze. It is attached to the face side of the bottom-rail, two pieces being required for each section. It is not included in the price of these Blinds, and we furnish it only upon special order at an extra **net** charge of 10 cents per section of Blind.



Full-Size Illustration of Willer's Standard Sliding Blind Spring No. 2. Style of Spring No. 3. Patented August 3d, 1886.

Willer's Standard

Sliding Blind Springs, Nos. 2 and 3.

THE cut to the left is a full-size illustration of Spring No. 2. It is the same spring that we have been using on our Blinds for more than ten years, and has been a potent factor in establishing the popularity which Willer's Sliding Blinds have achieved in the market. The pivoted friction block at the end of the spring is of wood; it has better adhesive qualities than if made of metal or any other material, and when Blinds are moved up or down, does not mar nor scratch the surface of the grooves in the Guide-ways.

The slotted moveable plate shown in cut lies under the spring and is moved forward or back to increase or diminish the power of the spring, making it possible to adjust it to the weight of the section of blind it has to hold in place. Where Blinds are of more than usual size or weight, we use three or more springs for each section of blind instead of two, usually required, or where space does not allow the use of more than two springs, we use double instead of single spring plates.

Spring No. 2 we use on Columbian and Standard Sliding Blinds, Nos. 2 and 3 only, which are $\frac{5}{8}$ inch thick.

Spring No. 3 is the same as No. 2 in general appearance, but somewhat smaller in size, and is used on Common Sliding Blinds, Nos. 4 and 5 only, which are $\frac{1}{2}$ inch thick.

Spring No. 2 is $\frac{5}{16}$ inch, and Spring No. 3, $\frac{1}{4}$ inch wide.

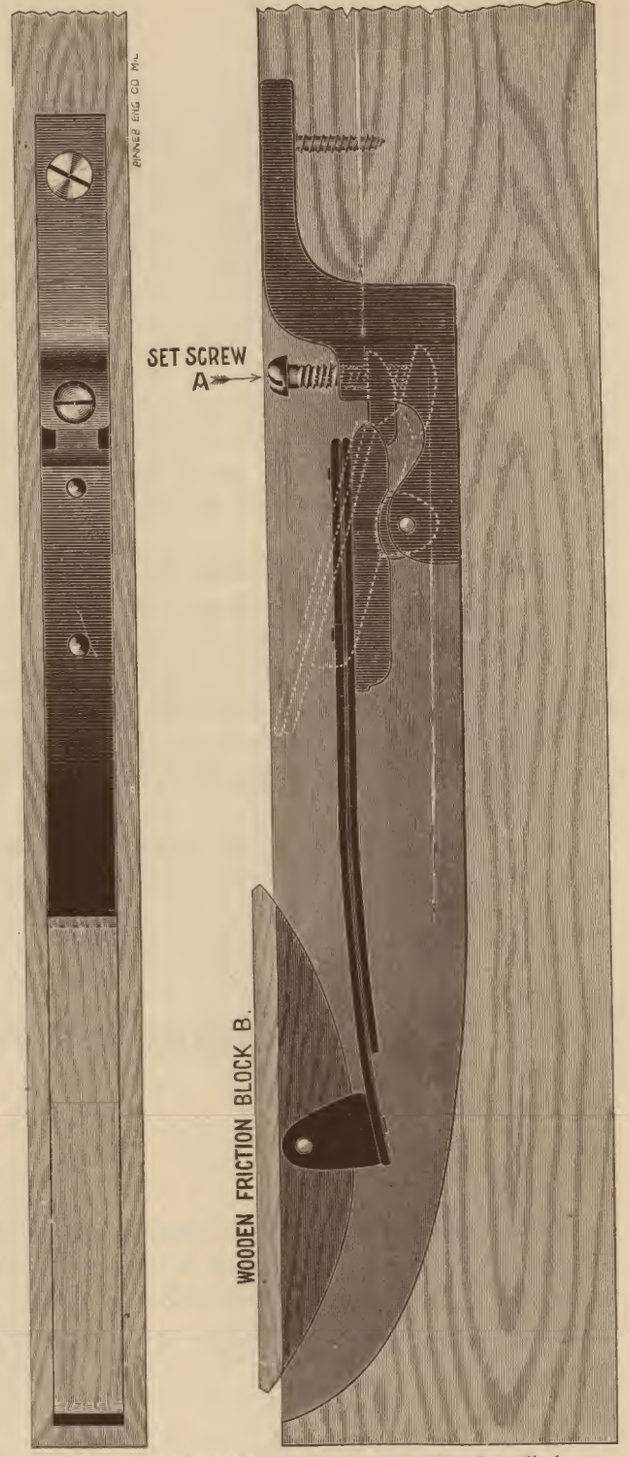
Willer's Improved

Sliding Blind Spring, No. 1.

THE cut to the right is a full-size illustration of this spring. In principle and size it is the same as our Standard No. 2, the improvement consisting in the very simple manner of adjusting it to suit the different weights of Blinds. By simply turning the set-screw A, the spring can be made to be so weak as not to hold up anything, or so strong that it is almost impossible to move the section of blind from its place. Ordinarily a single-bladed spring is sufficient; for larger blinds we use a double-bladed spring, as shown in cut. Two springs are used for each section of blind.

It is often the case that window-frames will expand somewhat in width after blinds have been properly put in and fitted, thereby loosening the hold of the spring. A slight turn of the set-screw A will at any time remedy this.

This spring is a rather expensive one and we furnish it without extra cost only in Columbian and Standard Sliding Blinds No. 1. We will furnish it in Nos. 2 and 3 only when so specially ordered at an extra charge of 10 cents net for each spring used.



Full-Size Illustration of Willer's Improved Sliding Blind Spring No. 1. Patent Pending.



Reid Bros., Portland, Oregon,
Architects.

THE OREGONIAN BUILDING,

PORTLAND, OREGON.

Fitted throughout with Willer's Columbian and Standard Sliding Blinds.

DESCRIPTION AND ILLUSTRATIONS OF GRADE,

AND ARRANGEMENT OF PANELS AND SLATS

FOR

Willer's Columbian (weight-balanced) Sliding Blinds No. 1, and Willer's Standard (spring-balanced) Sliding Blinds No. 1.

THESE two Blinds differ only in their methods of balancing, the first being balanced by weights and the other by springs; in all other respects they are identically the same. This grade has our **Patent No-Rod Rolling Slats** (P. R. S.) in a part of or in the **entire** set of Blinds. When such slats are used in only a part of the set, the balance may be filled with either **Open Stationary Slats** (O. S. S.) or with **Raised Panels,** (R. P.) or with a combination of both; or the Blinds may be had with Open Stationary Slats or with Raised Panels throughout, or with a combination of both. The Blinds are scant five-eighths of an inch thick, have mortised and tenoned joints and moulded (cove) or chamfered edges all around each division or panel. Each section of Blind is trimmed with all the necessary hardware of Plain Polished Genuine Bronze metal; other finishes of hardware supplied upon special order.

In this grade we furnish Willer's Improved Sliding Blind Spring, No. 1; it is the only grade in which this spring is furnished without extra charge, all other grades being supplied with our Standard Springs, Nos. 2 and 3. We finish this grade in three styles of finishes: **1st, Plain Finish,** meaning a plain varnished surface, gloss finish, not rubbed; **2nd, Cabinet Finish,** meaning the same as 1st and afterwards rubbed down with pumice-stone and oil to a smooth dead finish; **3d, Polished Finish,** meaning the same finish as 2nd with a smooth polished surface. The quality of material is the same in all three finishes.

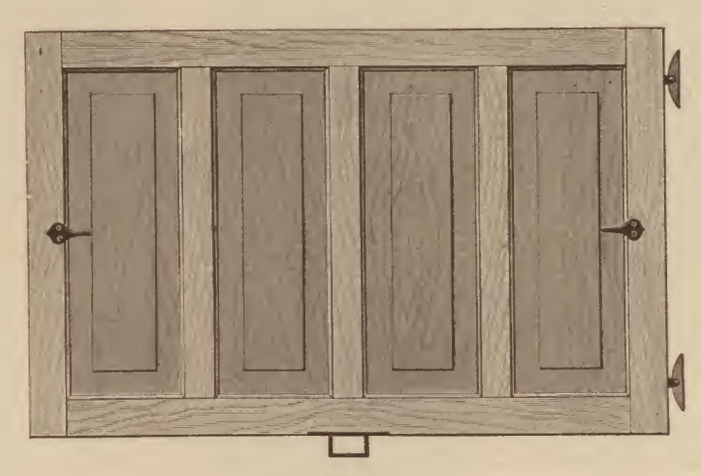


Fig. 1.

Showing the appearance of a section of Blind in this grade, all divisions filled with **Raised Panels** (R. P.); illustrating, among others, the appearance of each section shown in set No. 196, Arrangement of Panels and Slats.

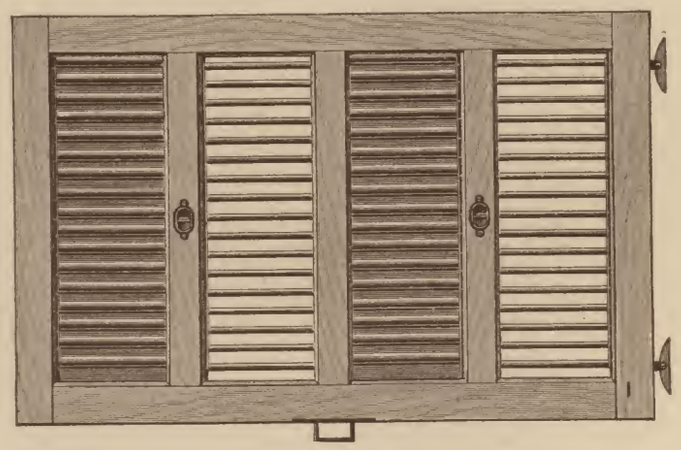


Fig. 2.

Showing the appearance of a section of Blind in this grade, all divisions filled with our **Patent No-Rod Rolling Slats** (P. R. S.); illustrating, among others, the appearance of each section shown in set No. 197, Arrangement of Panels and Slats.

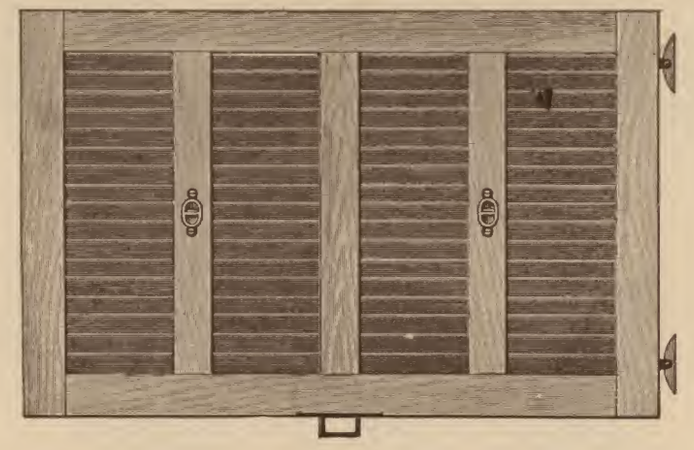
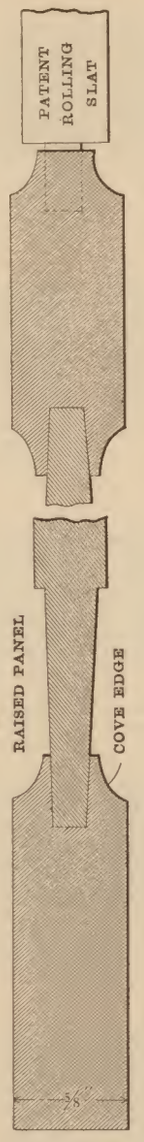


Fig. 3.

Showing the appearance of a section of Blind in this grade, all divisions filled with **Open Stationary Slats** (O. S. S.), illustrating, among others, the appearance of each section shown in Set No. 198, Arrangement of Panels and Slats.

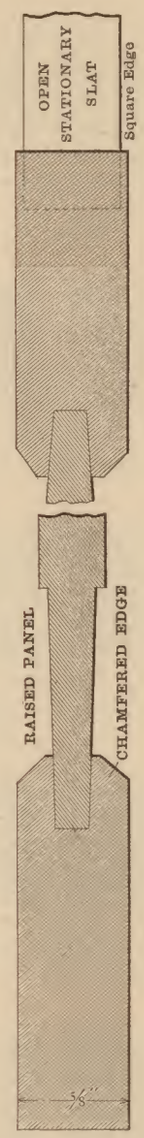
Fig. 5.

Showing the appearance of a section of Blind in this grade, the two outside divisions filled with **Raised Panels** (R. P.) and the two inside divisions with our **Patent No-Rod Rolling Slats** (P. R. S.), illustrating, among others, the appearance of each section shown in Set No. 202, Arrangement of Panels and Slats.



Cross-Section No. 50.

Cross-Section No. 50 is a full-size section through the section of Blind, Fig. 5. The cove edge is our standard style of sticking and is used on all sections of Blinds not containing open stationary slats.



CrossSection No. 51.

Cross-Section No. 51 is a full-size section through the section of Blind, Fig. 4. The open stationary slats require a square-edge stile, and when these slats are used in connection with raised panels in the same section, the edges around panels are chamfered.

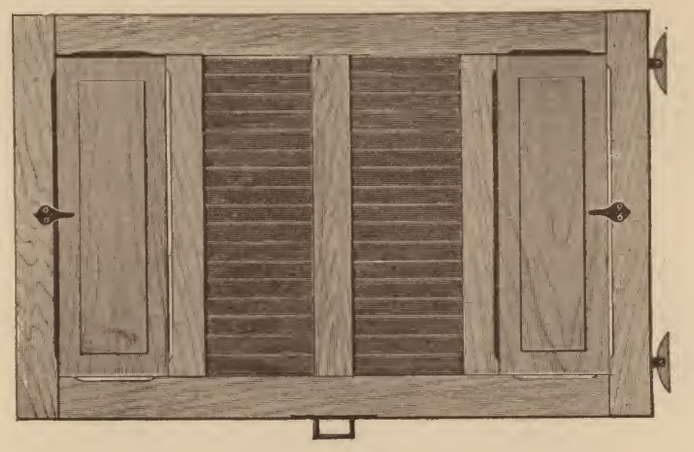


Fig. 4.

Showing the appearance of a section of Blind in this grade, the two outside divisions filled with **Raised Panels** (R. P.) and the two inside divisions with **Open Stationary Slats** (O. S. S.), illustrating, among others, the appearance of each section shown in Set No. 204, Arrangement of Panels and Slats.

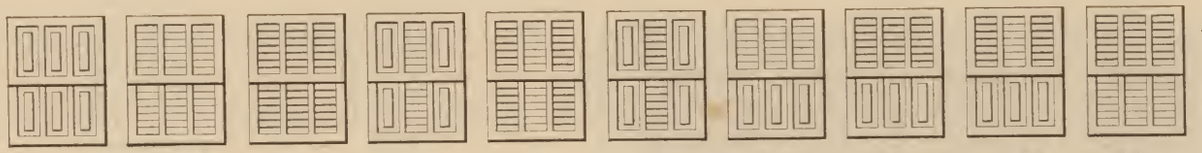
Fig. 6.

Showing the appearance of a section of Blind in this grade, the two outside divisions filled with **Open Stationary Slats** (O. S. S.) and the two inside divisions with our **Patent No-Rod Rolling Slats** (P. R. S.), illustrating, among others, the appearance of each section shown in Set No. 203, Arrangement of Panels and Slats.

2 Div. 12-20 inches wide.



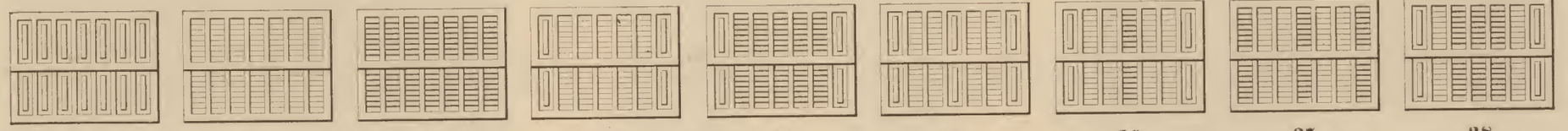
1 4-R. P. | **2** 4-R. S. | **3** 4-O. S. S. | **4** 2-P. R. S. 2-R. P. | **5** 2-O. S. S. 2-R. P. | **6** 2-O. S. S. 2-P. R. S.



10 6-R. P. | **11** 6-P. R. S. | **12** 6-O. S. S. | **13** 4-R. P. 2-P. R. S. | **14** 4-O S. S. 2-P. R. S. | **15** 4-R. P. 2-O. S. S. | **16** 3-R. P. 3-P. R. S. | **17** 3-R. P. 3-O. S. S. | **18** 3-R. P. 2-O. S. S. 1-P. R. S. | **19** 3-P. R. S. 3-O S. S.

3 Div. 18-30 inches wide.

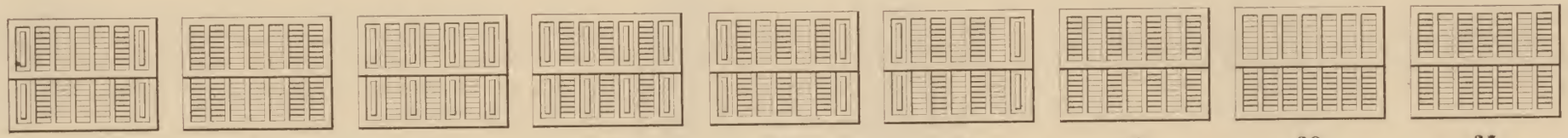
7 Div. 42-70 inches wide.



20 14 Div. R. P. | **21** 14 Div. P. R. S. | **22** 14 Div. O. S. S. | **23** 4 Div. R. P. 10 Div. P. R. S. | **24** 4 Div. R. P. 10 Div. O. S. S. | **25** 6 Div. R. P. 8 Div. P. R. S. | **26** 4 Div. R. P. 8 Div. P. R. S. 2 Div. O. S. S. | **27** 6 Div. O. S. S. 8 Div. P. R. S. | **28** 4 Div. R. P. 6 Div. O. S. S. 4 Div. P. R. S.

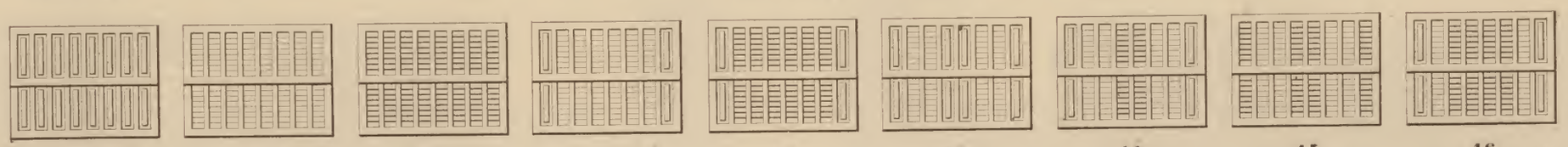
7 Div. 42-70 inches wide.

7 Div. 42-70 inches wide.



29 4 Div. R. P. 4 Div. O. S. S. 6 Div. P. R S. | **30** 8 Div. O. S. S. 6 Div. P. R. S. | **31** 8 Div. R. P. 6 Div. P. R. S. | **32** 8 Div. R. P. 6 Div. O. S. S. | **33** 4 Div. R. P. 6 Div. O. S. S. 4 Div. P. R. S. | **34** 4 Div. R. P. 6 Div. P. R. S. 4 Div. O. S. S. | **35** 8 Div. O S. S. 6 Div. P. R. S. | **36** 7 Div. O. S. S. 7 Div. P. R. S. | **37** 10 Div. O. S. S. 4 Div. P. R. S.

8 Div. 48-80 inches wide.



38 16 Div. R. P. | **39** 16 Div. P. R. S. | **40** 16 Div. O. S. S. | **41** 4 Div. R. P. 12 Div. P. R. S. | **42** 4 Div. R. P. 12 Div. O. S. S. | **43** 8 Div. R. P. 8 Div. P. R. S. | **44** 4 Div. R. P. 8 Div. P. R. S. 4 Div. O. S. S. | **45** 8 Div. O. S. S. 8 Div. P. R. S. | **46** 4 Div. R. P. 8 Div. O. S. S. 4 Div. P. R. S.

8 Div. 48-80 inches wide.

8 Div 48-80 inches wide.



47 4 Div. R. P. 8 Div. O. S. S. 4 Div. P. R. S. | **48** 12 Div. O. S. S. 4 Div. P. R. S. | **49** 8 Div. R. P. 8 Div. P. R. S. | **50** 8 Div. R. P. 8 Div. O. S. S. | **51** 4 Div. R. P. 8 Div. O. S. S. 4 Div. P. R. S. | **52** 4 Div. R. P. 8 Div. P. R. S. 4 Div. O. S. S. | **53** 8 Div. P. R. S. 8 Div. O. S. S. | **54** 8 Div. R. P. 8 Div. O. S. S. | **55** 12 Div. O. S. S. 4 Div. P. R. S.

ARRANGEMENT OF PANELS AND SLATS FOR CLASSES OF BLINDS TWO SECTIONS IN HEIGHT.

Willer's Columbian (weight-balanced) Sliding Blinds No. 1, and Willer's Standard (spring-balanced) Sliding Blinds No. 1.

Spaces filled with an oblong square, have **Raised Panels** (R. P.); light cross-lines, our **Patent No-Rod Rolling Slats** (P. R. S.); heavy cross-lines, **Open Stationary Slats** (O. S. S.).

4 Div. 24-40 inches wide.



56 8 Div. R. P.



57 8 Div. P. R. S.



58 8 Div. O. S. S.



59 4 Div. R. P. 4 Div. P. R. S.



60 4 Div. O. S. S. 4 Div. P. R. S.



61 4 Div. R. P. 4 Div. O. S. S.



62 4 Div. R. P. 4 Div. P. R. S.



63 4 Div. R. P. 4 Div. O. S. S.



64 4 Div. O. S. S. 4 Div. P. R. S.



65 4 Div. R. P. 2 Div. O. S. S. 2 Div. P. R. S.



66 6 Div. O. S. S. 2 Div. P. R. S.

4 Div. 24-40 inches wide.

5 Div. 30-50 inches wide.



67 10 Div. R P.



68 10 Div. P. R. S.



69 10 Div. O. S. S.



70 4 Div. R. P. 6 Div. P. R. S.



71 4 Div. O. S. S. 6 Div. P. R. S.



72 4 Div. R. P. 6 Div. O. S. S.



73 6 Div. R. P. 4 Div. P. R. S.



74 6 Div. O. S. S. 4 Div. P. R. S.



75 6 Div. R. P. 4 Div. O. S. S.

5 Div. 30-50 inches wide.

6 Div. 30-50 inches wide.



76 5 Div. R. P. 5 Div. P. R. S.



77 5 Div. R. P. 5 Div. O. S. S.



78 5 Div. P. R. S. 5 Div. O. S. S.



79 4 Div. R. P. 4 Div P. R. S. 2 Div. O. S. S.



80 4 Div. R. P. 4 Div. O. S. S. 2 Div. P. R. S.





81 12 Div. R. P.



82 12 Div. P. R. S.



83 12 Div. O. S. S.

6 Div. 36-60 inches wide.

6 Div. 36-60 inches wide.



84 4 Div. R. P. 8 Div. P. R. S.



85 4 Div. O. S. S. 8 Div. P. R. S.



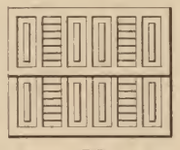
86 4 Div. R. P. 8 Div. O. S. S.



87 8 Div. R. P. 4 Div. P. R. S.



88 8 Div. O. S. S. 4 Div. P. R. S.



89 8 Div. R. P. 4 Div. O. S. S.



90 4 Div. R. P. 4 Div. O. S. S. 4 Div. P. R. S.



91 4 Div. R. P. 4 Div. P. R. S. 4 Div. O. S. S.

6 Div. 36-60 inches wide.

6 Div. 36-60 inches wide.



92 8 Div. R. P. 4 Div. P. R. S.



93 8 Div. O. S. S. 4 Div. P. R. S.



94 8 Div. R. P. 4 Div. O. S. S.



95 6 Div. R. P. 6 Div. P. R. S.



96 6 Div. O. S. S. 6 Div. P. R. S.



97 4 Div. R. P. 4 Div. O. S. S. 4 Div. P. R. S.



98 4 Div. R. P. 4 Div. P. R. S. 4 Div. O. S. S.



99 6 Div. R. P. 6 Div. O. S. S.

6 Div. 36-60 inches wide.

ARRANGEMENT OF PANELS AND SLATS FOR CLASSES OF BLINDS TWO SECTIONS IN HEIGHT.

Willer's Columbian (weight-balanced) Sliding Blinds No. 1, and Willer's Standard (spring-balanced) Sliding Blinds No. 1.

Spaces filled with an oblong square, have **Raised Panels** (R. P.); light cross-lines, our **Patent No-Rod Rolling Slats** (P. R. S.); heavy cross-lines, **Open Stationary Slats** (O. S. S.).

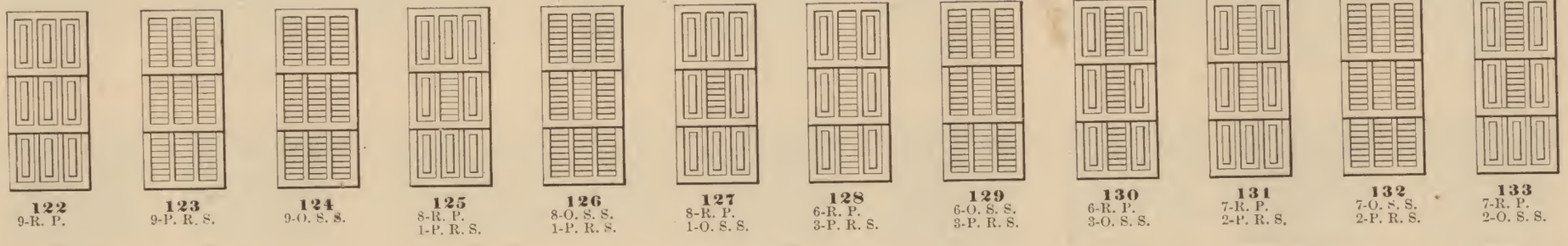
2 Div. 12-20 inches wide.



100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121
6-R.P.	6-P.R.S.	6-O.S.S.	5-R.P. 1-P.R.S.	5-R.P. 1-P.R.S.	5-O.S.S. 1-P.R.S.	5-O.S.S. 1-P.R.S.	5-R.P. 1-O.S.S.	5-R.P. 1-O.S.S.	3-R.P. 3-P.R.S.	3-R.P. 3-P.R.S.	3-O.S.S. 3-P.R.S.	3-O.S.S. 3-P.R.S.	3-R.P. 3-O.S.S.	3-R.P. 3-O.S.S.	4-R.P. 2-P.R.S.	4-O.S.S. 2-P.R.S.	4-R.P. 2-O.S.S.	2-R.P. 4-P.R.S.	2 O.S.S. 4-P.R.S.	2-R.P. 4-O.S.S.	2-R.P. 2-O.S.S. 2-P.R.S.

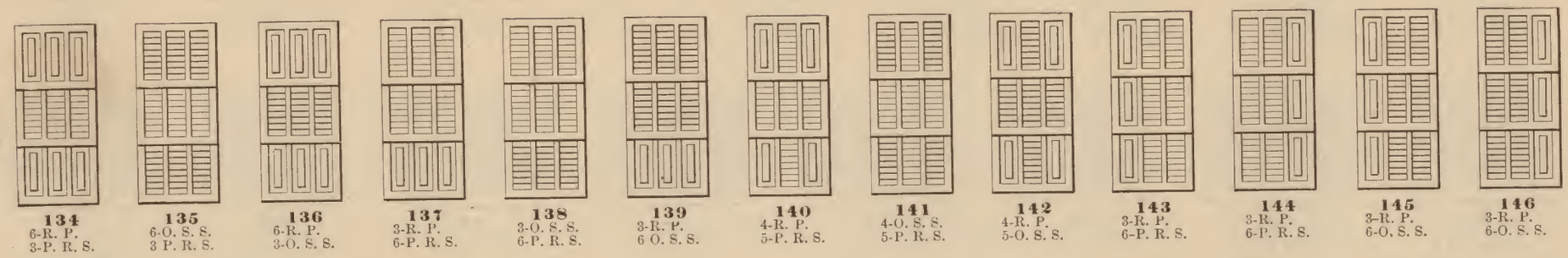
2 Div. 12-20 inches wide.

3 Div. 18-30 inches wide.



122	123	124	125	126	127	128	129	130	131	132	133
9-R. P.	9-P. R. S.	9-O. S. S.	8-R. P. 1-P. R. S.	8-O. S. S. 1-P. R. S.	8-R. P. 1-O. S. S.	6-R. P. 3-P. R. S.	6-O. S. S. 3-P. R. S.	6-R. P. 3-O. S. S.	7-R. P. 2-P. R. S.	7-O. S. S. 2-P. R. S.	7-R. P. 2-O. S. S.

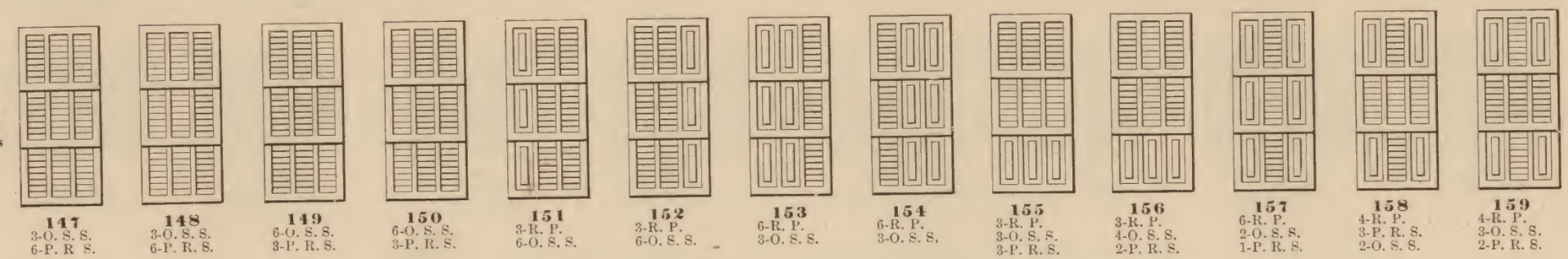
3 Div. 18-30 inches wide.



134	135	136	137	138	139	140	141	142	143	144	145	146
6-R. P. 3-P. R. S.	6-O. S. S. 3 P. R. S.	6-R. P. 3-O. S. S.	3-R. P. 6-P. R. S.	3-O. S. S. 6-P. R. S.	3-R. P. 6 O. S. S.	4-R. P. 5-P. R. S.	4-O. S. S. 5-P. R. S.	4-R. P. 5-O. S. S.	3-R. P. 6-P. R. S.	3-R. P. 6-P. R. S.	3-R. P. 6-O. S. S.	3-R. P. 6-O. S. S.

3 Div. 18-30 inches wide.

3 Div. 18-30 inches wide.



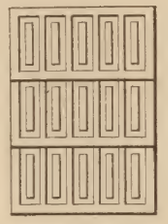
147	148	149	150	151	152	153	154	155	156	157	158	159
3-O. S. S. 6-P. R S.	3-O. S. S. 6-P. R. S.	6-O. S. S. 3-P. R. S.	6-O. S. S. 3-P. R. S.	3-R. P. 6-O. S. S.	3-R. P. 6-O. S. S.	6-R. P. 3-O. S. S.	6-R. P. 3-O. S. S.	3-R. P. 3-O. S. S. 3-P. R. S.	3-R. P. 4-O. S. S. 2-P. R. S.	6-R. P. 2-O. S. S. 1-P. R. S.	4-R. P. 3-P. R. S. 2-O. S. S.	4-R. P. 3-O. S. S. 2-P. R. S.

ARRANGEMENT OF PANELS AND SLATS FOR CLASSES OF BLINDS THREE SECTIONS IN HEIGHT.

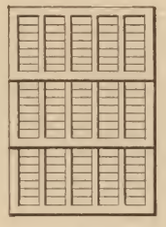
Willer's Columbian (weight-balanced) Sliding Blinds No. 1, and Willer's Standard (spring-balanced) Sliding Blinds No. 1.

Spaces filled with an oblong square, have **Raised Panels** (R. P.); light cross-lines, our **Patent No-Rod Rolling Slats** (P. R. S.); heavy cross-lines, **Open Sationary Slats** (O. S. S.).

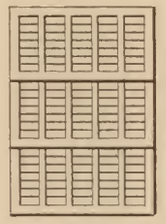
5 Div. 30-50 inches wide.



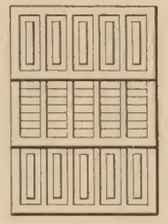
160
15 Div. R. P.



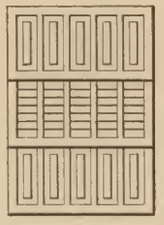
161
15 Div. P. R. S.



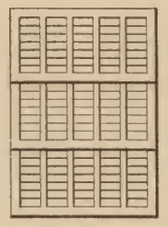
162
15 Div. O. S. S.



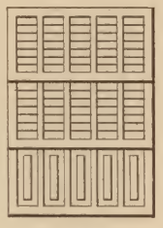
163
10 Div. R. P.
5 Div. P. R. S.



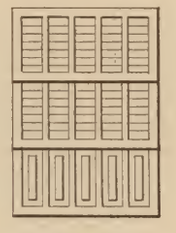
164
10 Div. R. P.
5 Div. O. S. S.



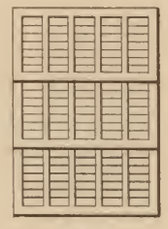
165
10 Div. O. S. S.
5 Div. P. R. S.



166
5 Div. R. P.
10 Div. O. S. S.



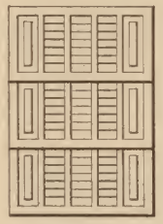
167
5 Div. R. P.
10 Div. P. R. S.



168
5 Div. O. S. S.
10 Div. P. R. S.

5 Div. 30-50 inches wide.

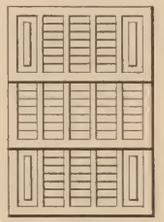
5 Div. 30-50 inches wide.



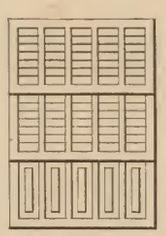
169
6 Div. R. P.
6 Div. O. S. S.
3 Div. P. R. S.



170
6 Div. R. P.
4 Div. O. S. S.
5 Div. P. R. S.



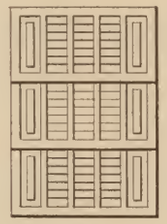
171
4 Div. R. P.
6 Div. O. S. S.
5 Div. P. R. S.



172
5 Div. R. P.
5 Div. O. S. S.
5 Div. P. R. S.



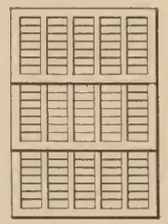
173
5 Div. R. P.
4 Div. O. S. S.
6 Div. P. R. S.



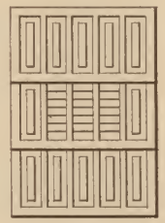
174
6 Div. R. P.
6 Div. O. S. S.
3 Div. P. R. S.



175
12 Div. R. P.
3 Div. P. R. S.



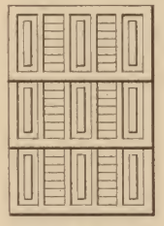
176
12 Div. O. S. S.
3 Div. P. R. S.



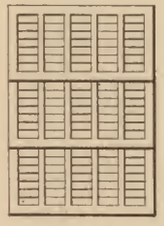
177
12 Div. R. P.
3 Div. O. S. S.

5 Div. 30-50 inches wide.

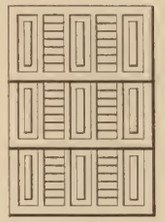
5 Div. 30-50 inches wide.



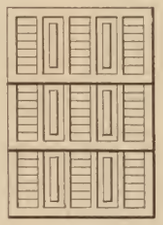
178
9 Div. R. P.
6 Div. P. R. S.



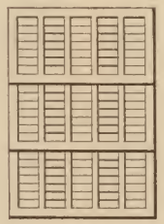
179
9 Div. O. S. S.
6 Div. P. R. S.



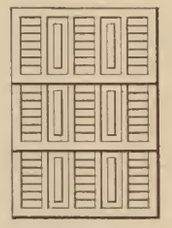
180
9 Div. R. P.
6 Div. O. S. S.



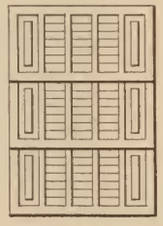
181
6 Div. R. P.
9 Div. P. R. S.



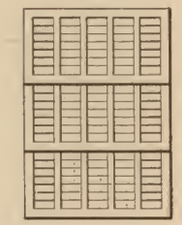
182
6 Div. O. S. S.
9 Div. P. R. S.



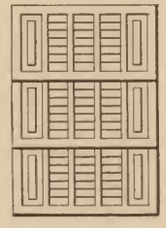
183
6 Div. R. P.
9 Div. O. S. S.



184
6 Div. R. P.
9 Div. P. R. S.



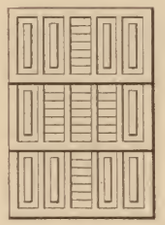
185
6 Div. O. S. S.
9 Div. P. R. S.



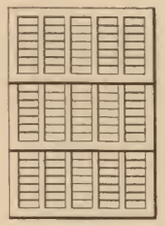
186
6 Div. R. P.
9 Div. O. S. S.

5 Div. 30-50 inches wide.

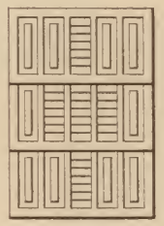
5 Div. 30-50 inches wide.



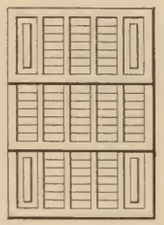
187
10 Div. R. P.
5 Div. P. R. S.



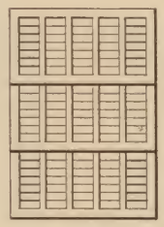
188
10 Div. O. S. S.
5 Div. P. R. S.



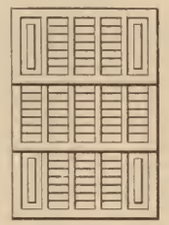
189
10 Div. R. P.
5 Div. O. S. S.



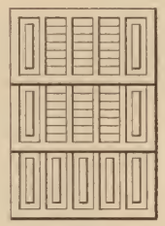
190
4 Div. R. P.
11 Div. P. R. S.



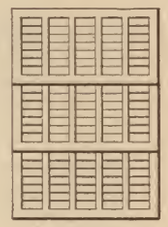
191
4 Div. O. S. S.
11 Div. P. R. S.



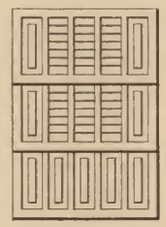
192
4 Div. R. P.
11 Div. O. S. S.



193
9 Div. R. P.
6 Div. P. R. S.



194
9 Div. O. S. S.
6 Div. P. R. S.



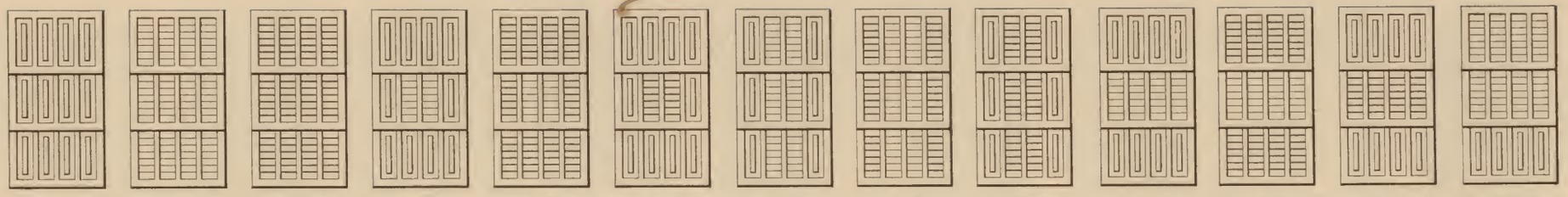
195
9 Div. R. P.
6 Div. O. S. S.

ARRANGEMENT OF PANELS AND SLATS FOR CLASSES OF BLINDS THREE SECTIONS IN HEIGHT.

Willer's Columbian (weight-balanced) Sliding Blinds No. 1, and Willer's Standard (spring-balanced) Sliding Blinds No. 1.

Spaces filled with an oblong square, have **Raised Panels** (R. P.); light cross-lines, our **Patent No-Rod Rolling Slats** (P. R. S.); heavy cross-lines, **Open Stationary Slats** (O. S. S.).

4 Div. 24-40 inches wide.



196	197	198	199	200	201	202	203	204	205	206	207	208
12 Div. R. P.	12 Div. P. R. S.	12 Div. O. S. S.	10 Div. R. P. 2 Div. P. R. S.	10 Div. O. S. S. 2 Div. P. R. S.	10 Div. R. P. 2 Div. O. S. S.	6 Div. R. P. 6 Div. P. R. S.	6 Div. O. S. S. 6 Div. P. R. S.	6 Div. R. P. 6 Div. O. S. S.	8 Div. R. P. 4 Div. P. R. S.	8 Div. O. S. S. 4 Div. P. R. S.	8 Div. R. P. 4 Div. O. S. S.	4 Div. R. P. 8 Div. P. R. S.

4 Div. 24-40 inches wide.



209	210	211	212	213	214	215	216	217	218	219	220	221
4 Div. O. S. S. 8 Div. P. R. S.	4 Div. R. P. 8 Div. O. S. S.	8 Div. R. P. 4 Div. P. R. S.	8 Div. O. S. S. 4 Div. P. R. S.	8 Div. R. P. 4 Div. O. S. S.	4 Div. R P. 8 Div. P. R. S.	4 Div. O. S. S. 8 Div. P. R. S.	4 Div. R. P. 8 Div. O. S. S.	6 Div. R. P. 4 Div. O. S. S. 2 Div. P. R. S.	4 Div. R. P. 4 Div. O. S. S. 4 Div. P. R. S.	4 Div. R. P. 4 Div. O. S. S. 4 Div. P. R. S.	4 Div. R. P. 4 Div. O. S. S. 4 Div. P. R. S.	8 Div. R. P. 2 Div. O. S. S. 2 Div. P. R. S.

6 Div. 36-60 inches wide.



222	223	224	225	226	227	228	229
18 Div. R. P.	18 Div. P. R. S.	18 Div. O. S. S.	14 Div. R. P. 4 Div. P. R. S.	14 Div. O. S. S. 4 Div. P. R. S.	14 Div. R. P. 4 Div. O. S. S.	12 Div. R. P. 6 Div. P. R. S.	12 Div. O. S. S. 6 Div. P. R. S.

6 Div. 36-60 inches wide.



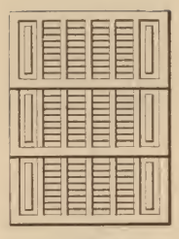
230	231	232	233	234	235	236	237
12 Div. R. P. 6 Div. O. S. S.	10 Div. R. P. 8 Div. P. R. S.	10 Div. R. P. 8 Div. O. S. S.	12 Div. R. P. 6 Div. P. R. S.	12 Div. O. S. S. 6 Div. P. R. S.	12 Div. R. P. 6 Div. O. S. S.	6 Div. R. P. 12 Div. P. R. S.	6 Div. O. S. S. 12 Div. P. R. S.

ARRANGEMENT OF PANELS AND SLATS FOR CLASSES OF BLINDS THREE SECTIONS IN HEIGHT.

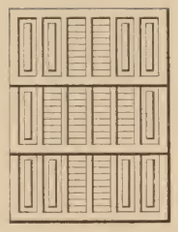
Willer's Columbian (weight-balanced) Sliding Blinds No. 1, and Willer's Standard (spring-balanced) Sliding Blinds No. 1.

Spaces filled with an oblong square, have **Raised Panels** (R. P.); light cross-lines, our **Patent No-Rod Rolling Slats** (P. R. S.); heavy cross-lines, **Open Stationary Slats** (O. S. S.).

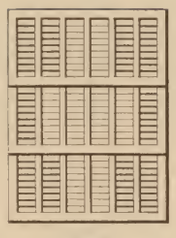
6 Div. 36-60 inches wide.



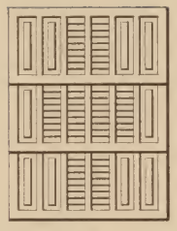
238
6 Div. R. P.
12 Div. O. S.



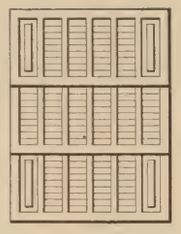
239
10 Div. R. P.
8 Div. P. R. S.



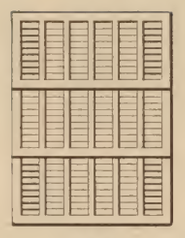
240
10 Div. O. S. S.
8 Div. P. R. S.



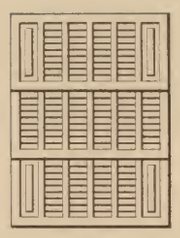
241
10 Div. R. P.
8 Div. O. S. S.



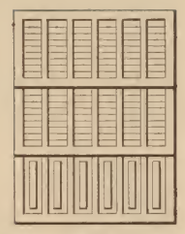
242
4 Div. R. P.
14 Div. P. R. S.



243
4 Div. O. S. S.
14 Div. P. R. S.



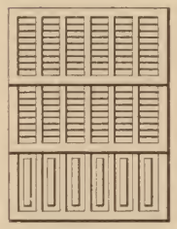
244
4 Div. R. P.
14 Div. O. S. S.



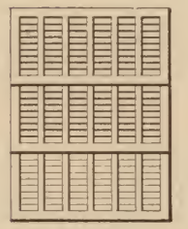
245
6 Div. R. P.
12 Div. P. R. S.

6 Div. 36-60 inches wide.

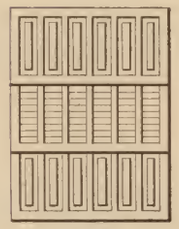
6 Div. 36-60 inches wide.



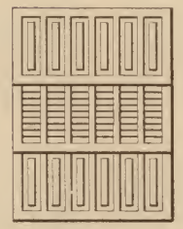
246
6 Div. R. P.
12 Div. O. S. S.



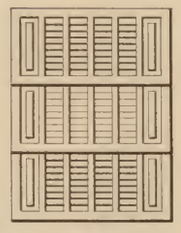
247
12 Div. O. S. S.
6 Div. P. R. S.



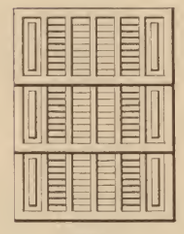
248
12 Div. R. P.
6 Div. P. R. S.



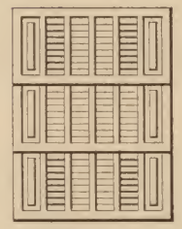
249
12 Div. R. P.
6 Div. O. S. S.



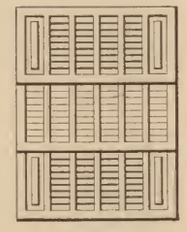
250
6 Div. R. P.
8 Div. O. S. S.
4 Div. P. R. S.



251
6 Div. R. P.
6 Div. O. S. S.
6 Div. P. R. S.



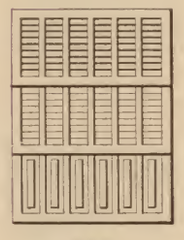
252
6 Div. R. P.
4 Div. O. S. S.
8 Div. P. R. S.



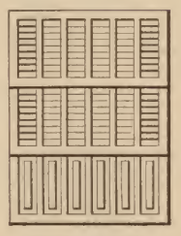
253
4 Div. R. P.
8 Div. O. S. S.
6 Div. P, R. S.

6 Div. 36-60 inches wide.

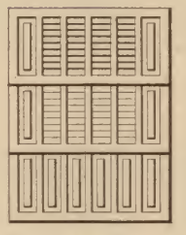
6 Div. 36-60 inches wide.



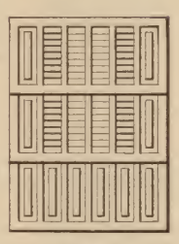
254
6 Div. R. P.
6 Div. O. S. S.
6 Div. P. R. S.



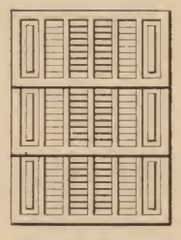
255
6 Div. R. P.
4 Div. O. S. S.
8 Div. P. R. S.



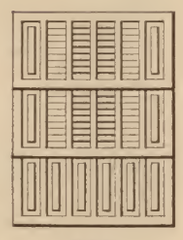
256
10 Div. R. P.
4 Div. O. S. S.
4 Div. P. R. S.



257
10 Div. R. P.
4 Div. O. S. S.
4 Div. P. R. S.



258
6 Div. R. P.
6 Div. O. S. S.
6 Div. P. R. S.



259
10 Div. R. P.
4 Div. O. S. S.
4 Div. P. R. S.

ARRANGEMENT OF PANELS AND SLATS FOR CLASSES OF BLINDS THREE SECTIONS IN HEIGHT.

Willer's Columbian (weight-balanced) Sliding Blinds No. 1, and Willer's Standard (spring-balanced) Sliding Blinds No. 1.

Spaces filled with an oblong square, have **Raised Panels** (R. P.); light cross-lines, our **Patent No-Rod Rolling Slats** (P. R. S.); heavy cross-lines, **Open Stationary Slats** (O. S. S.).

7 Div. 42-70 inches wide.



260	261	262	263	264	265	266	267	268
12 Div. R. P. 9 Div. P. R. S.	12 Div. O. S. S. 9 Div. P. R. S.	12 Div. R. P. 9 Div. O. S. S.	12 Div. R. P. 9 Div. P. R. S.	12 Div. O. S. S. 9 Div. P. R. S.	12 Div. R. P. 9 Div. O. S. S.	9 Div. R. P. 12 Div. P. R. S.	9 Div. O. S. S. 12 Div. P. R. S.	9 Div. R. P. 12 Div. O. S. S.

7 Div. 42-70 inches wide.



269	270	271	272	273	274	275	276	277
6 Div. R. P. 15 Div. P. R. S.	6 Div. R. P. 15 Div. O. S. S.	6 Div. R. P. 6 Div. O. S. S. 9 Div. P. R. S.	14 Div. O. S. S. 7 Div. P. R. S.	16 Div. R. P. 5 Div. P. R. S.	12 Div. R. P. 6 Div. O. S. S. 3 Div. P. R. S.	7 Div. R. P. 8 Div. O. S. S. 6 Div. P. R. S.	11 Div. R. P. 10 Div. P. R. S.	15 Div. R. P. 6 Div. P. R. S.

7 Div. 42-70 inches wide.

8 Div. 48-80 inches wide.



278	279	280	281	282	283	284	285	286
12 Div. R. P. 12 Div. P. R. S.	12 Div. O. S. S. 12 Div. P. R. S.	12 Div. R. P. 12 Div. O. S. S.	12 Div. R. P. 12 Div. P. R. S.	12 Div. O. S. S. 12 Div. P. R. S.	12 Div. R. P. 12 Div. O. S. S.	12 Div. R. P. 12 Div. P. R. S.	12 Div. O. S. S. 12 Div. P. R. S.	12 Div. R. P. 12 Div. O. S. S.

8 Div. 48-80 inches wide.



287	288	289	290	291	292	293	294	295
6 Div. R. P. 18 Div. P. R. S.	6 Div. R. P. 18 Div. O. S. S.	6 Div. R. P. 12 Div. O. S. S. 6 Div. P. R. S.	16 Div. O. S. S. 8 Div. P. R. S.	18 Div. R. P. 6 Div. P. R. S.	12 Div. R. P. 8 Div. O. S. S. 4 Div. P. R. S.	8 Div. R. P. 8 Div. O. S. S. 8 Div. P. R. S.	12 Div. R. P. 12 Div. P. R. S.	16 Div. R. P. 8 Div. P. R. S.

8 Div. 48-80 inches wide.

ARRANGEMENT OF PANELS AND SLATS FOR CLASSES OF BLINDS THREE SECTIONS IN HEIGHT.

Willer's Columbian (weight-balanced) Sliding Blinds No. 1, and Willer's Standard (spring-balanced) Sliding Blinds No. 1.

Spaces filled with an oblong square, have **Raised Panels** (R. P.); light cross-lines, our **Patent No-Rod Rolling Slats** (P. R. S.); heavy cross-lines, **Open Stationary Slats** (O. S. S.).

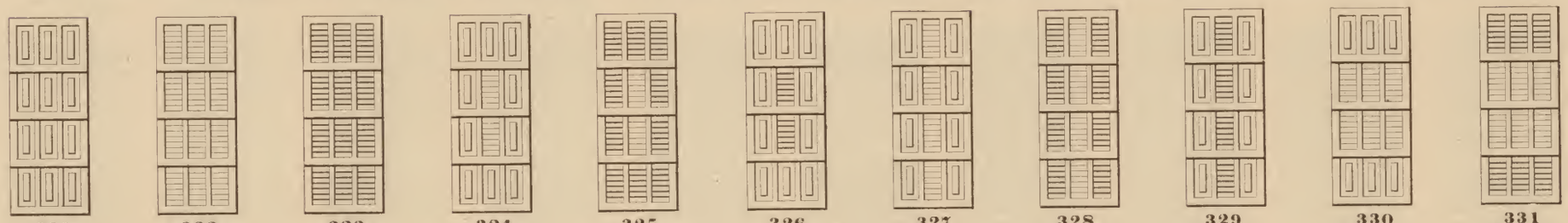
2 Div. 12-20 inches wide.



300 8-R.P. | **301** 8-P.R.S. | **302** 8-O.S.S. | **303** 6-R.P. 2-P.R.S. | **304** 6-R.P. 2-P.R.S. | **305** 6-O.S.S. 2-P.R.S. | **306** 6-O.S.S. 2-P.R.S. | **307** 6-R.P. 2-O.S.S. | **308** 6-R.P. 2-O.S.S. | **309** 4-R.P. 4-P.R.S. | **310** 4-R.P. 4-P.R.S. | **311** 4-O.S.S. 4-P.R.S. | **312** 4-O.S.S. 4-P.R.S | **313** 4-R.P. 4-P.R.S. | **314** 4-O.S.S. 4-P.R.S. | **315** 4-R.P. 4-O.S.S. | **316** 2-R.P. 6-P.R.S. | **317** 2-R.P. 6-O.S.S. | **318** 6-O.S.S. 2-P.R.S. | **319** 4-R.P. 4-O.S.S. | **320** 4-R.P. 4-O.S.S.

2 Div. 12-20 inches wide.

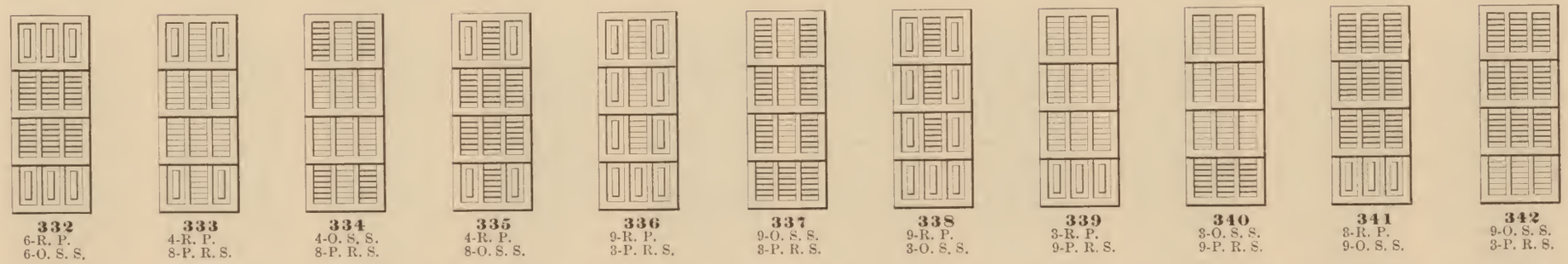
3 Div. 18-30 inches wide.



321 12-R. P. | **322** 12-P. R. S. | **323** 12-O. S. S. | **324** 10-R. P. 2-P. R. S. | **325** 10-O. S. S. 2-P. R. S. | **326** 10-R. P. 2-O. S. S. | **327** 8-R. P. 4-P. R. S. | **328** 8-O. S. S. 4-P. R. S. | **329** 8-R. P. 4-O. S. S. | **330** 6-R. P. 6-P. R. S. | **331** 6-O. S. S. 6-P. R. S.

3 Div. 18-30 inches wide.

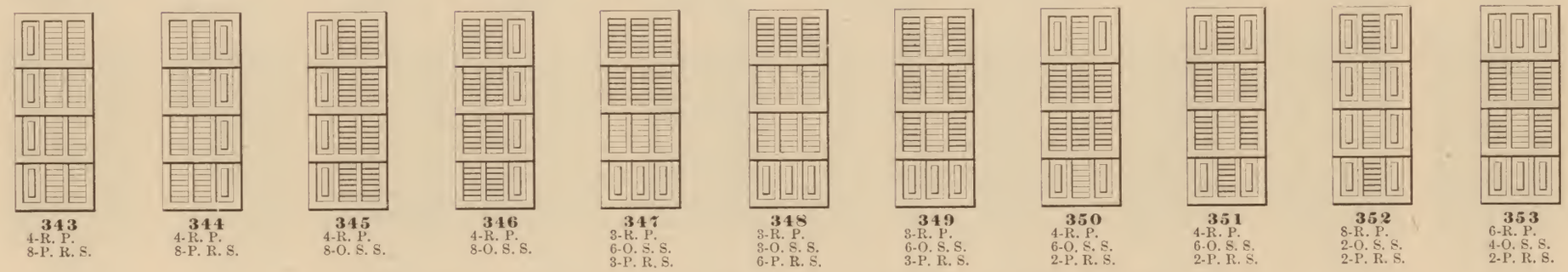
3 Div. 18-30 inches wide.



332 6-R. P. 6-O. S. S. | **333** 4-R. P. 8-P. R. S. | **334** 4-O. S. S. 8-P. R. S. | **335** 4-R. P. 8-O. S. S. | **336** 9-R. P. 3-P. R. S. | **337** 9-O. S. S. 3-P. R. S. | **338** 9-R. P. 3-O. S. S. | **339** 3-R. P. 9-P. R. S. | **340** 3-O. S. S. 9-P. R. S. | **341** 3-R. P. 9-O. S. S. | **342** 9-O. S. S. 3-P. R. S.

3 Div. 18-30 inches wide.

3 Div. 18-30 inches wide.



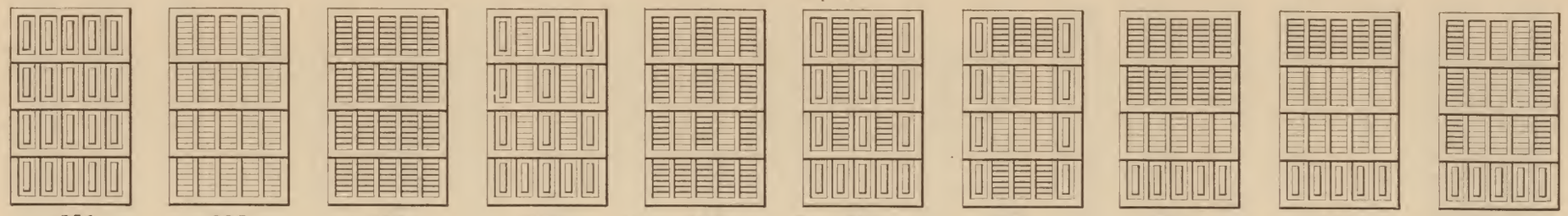
343 4-R. P. 8-P. R. S. | **344** 4-R. P. 8-P. R. S. | **345** 4-R. P. 8-O. S. S. | **346** 4-R. P. 8-O. S. S. | **347** 3-R. P. 6-O. S. S. 3-P. R. S. | **348** 3-R. P. 3-O. S. S. 6-P. R. S. | **349** 3-R. P. 6-O. S. S. 3-P. R. S. | **350** 4-R. P. 6-O. S. S. 2-P. R. S. | **351** 4-R. P. 6-O. S. S. 2-P. R. S. | **352** 8-R. P. 2-O. S. S. 2-P. R. S. | **353** 6-R. P. 4-O. S. S. 2-P. R. S.

ARRANGEMENT OF PANELS AND SLATS FOR CLASSES OF BLINDS FOUR SECTIONS IN HEIGHT.

Willer's Columbian (weight-balanced) Sliding Blinds No. 1, and Willer's Standard (spring-balanced) Sliding Blinds No. 1.

Spaces filled with an oblong square, have **Raised Panels** (R. P.); light cross-lines, our **Patent No-Rod Rolling Slats** (P. R. S.); heavy cross-lines, **Open Stationary Slats** (O. S. S.).

5 Div. 30-50 inches wide.



354 20 Div. R. P.

355 20 Div. P. R. S.

356 20 Div. O. S. S.

357 14 Div. R. P. 6 Div. P. R. S.

358 14 Div. O. S. S. 6 Div. P. R. S.

359 14 Div. R. P. 6 Div. O. S. S.

360 8 Div. R. P. 6 Div. O. S. S. 6 Div. P. R. S.

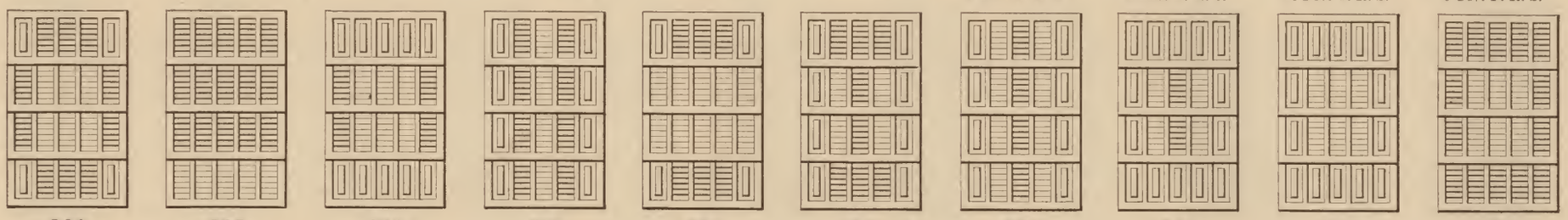
361 5 Div. R. P. 10 Div. O. S. S. 5 Div. P. R. S.

362 5 Div. R. P. 5 Div. O. S. S. 10 Div. P. R. S.

363 5 Div. R. P. 6 Div. O. S. S. 9 Div. P. R. S.

5 Div. 30-50 inches wide.

5 Div. 30-50 inches wide.



364 4 Div. R. P. 10 Div. O. S. S. 6 Div. P. R. S.

365 15 Div. O. S. S. 5 Div. P. R. S.

366 10 Div. R. P. 4 Div. O. S. S. 6 Div. P. R. S.

367 8 Div. R. P. 8 Div. O. S. S. 4 Div. P. R. S.

368 4 Div. R. P. 6 Div. O. S. S. 10 Div. P. R. S.

369 8 Div. R. P. 8 Div. O. S. S. 4 Div. P. R. S.

370 8 Div. R. P. 4 Div. O. S. S. 8 Div. P. R. S.

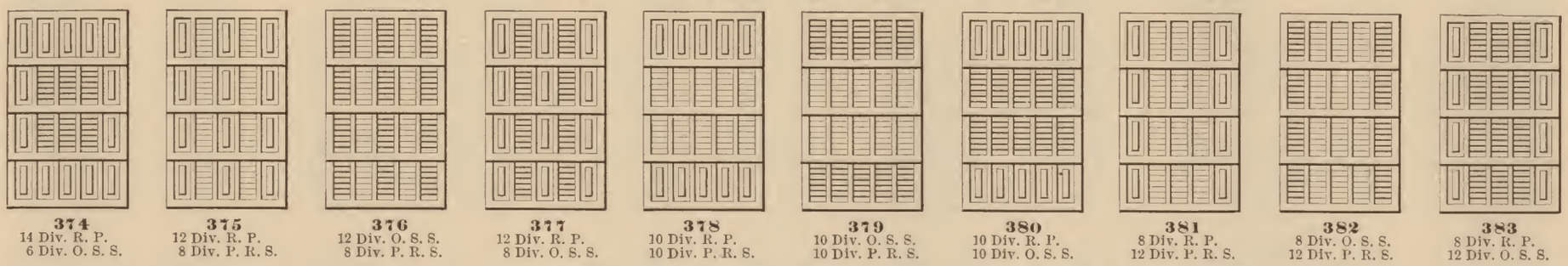
371 14 Div. R. P. 2 Div. O. S. S. 4 Div. P. R. S.

372 14 Div. R. P. 6 Div. P. R. S.

373 14 Div. O. S. S. 6 Div. P. R. S.

5 Div. 30-50 inches wide.

5 Div. 30-50 inches. wide



374 14 Div. R. P. 6 Div. O. S. S.

375 12 Div. R. P. 8 Div. P. R. S.

376 12 Div. O. S. S. 8 Div. P. R. S.

377 12 Div. R. P. 8 Div. O. S. S.

378 10 Div. R. P. 10 Div. P. R. S.

379 10 Div. O. S. S. 10 Div. P. R. S.

380 10 Div. R. P. 10 Div. O. S. S.

381 8 Div. R. P. 12 Div. P. R. S.

382 8 Div. O. S. S. 12 Div. P. R. S.

383 8 Div. R. P. 12 Div. O. S. S.

5 Div. 30-50 inches wide.

5 Div. 30-50 inches wide.



384 12 Div. R. P. 8 Div. P. R. S.

385 12 Div. O. S. S. 8 Div. P. R. S.

386 12 Div. R. P. 8 Div. O. S. S.

387 4 Div. R. P. 16 Div. P. R. S.

388 4 Div. O. S. S. 16 Div. P. R. S.

389 4 Div. R. P. 16 Div. O. S. S.

390 11 Div. R. P. 9 Div. P. R. S.

391 11 Div. O. S. S. 9 Div. P. R. S.

392 11 Div. R. P. 9 Div. O. S. S.

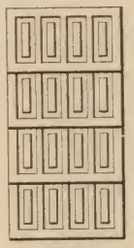
393 5 Div. R. P. 9 Div. O. S. S. 6 Div. P. R. S.

ARRANGEMENT OF PANELS AND SLATS FOR CLASSES OF BLINDS FOUR SECTIONS IN HEIGHT.

Willer's Columbian (weight-balanced) Sliding Blinds No. 1, and Willer's Standard (spring-balanced) Sliding Blinds No. 1.

Spaces filled with an oblong square, have **Raised Panels** (R. P.); light-cross lines, our **Patent No-Rod Rolling Slats** (P. R. S.); heavy cross-lines, **Open Stationary Slats** (O. S. S.).

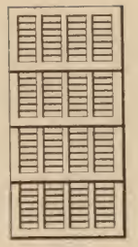
4 Div. 24-40 inches wide



394 16 Div. R. P.



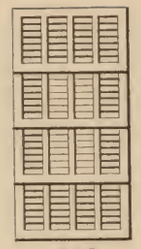
395 16 Div. P. R. S.



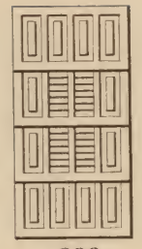
396 16 Div. O. S. S.



397 12 Div. R. P. 4 Div. P. R. S.



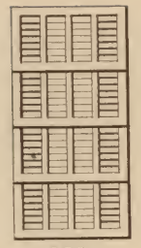
398 12 Div. O. S. S. 4 Div. P. R. S.



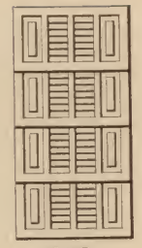
399 12 Div. R. P. 4 Div. O. S. S.



400 8 Div. R. P. 8 Div. P. R. S.



401 8 Div. O. S. S. 8 Div. P. R. S.



402 8 Div. R. P. 8 Div. O. S. S.



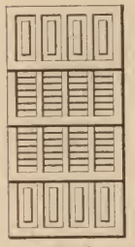
403 8 Div. R. P. 8 Div. P. R. S.

4 Div. 24-40 inches wide.

4 Div. 24-40 inches wide.



404 8 Div. O. S. S. 8 Div. P. R. S.



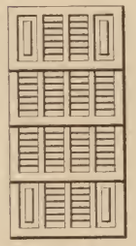
405 8 Div. R. P. 8 Div. O. S. S.



406 4 Div. R. P. 12 Div. P. R. S.



407 4 Div. O. S. S. 12 Div. P. R. S.



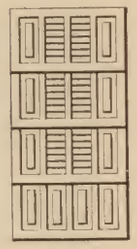
408 4 Div. R. P. 12 Div. O. S. S.



409 10 Div. R. P. 6 Div. P. R. S.



410 10 Div. O. S. S. 6 Div. P. R. S.



411 10 Div. R. P. 6 Div. O. S. S.



412 4 Div. R. P. 12 Div. P. R. S.



413 4 Div. O. S. S. 12 Div. P. R. S.

4 Div. 24-40 inches wide.

4 Div. 24-40 inches wide.



414 4 Div. R. P. 12 Div. O. S. S.



415 12 Div. O. S. S. 4 Div. P. R. S.



416 8 Div. R. P. 4 Div. O. S. S. 4 Div. P. R. S.



417 4 Div. R. P. 8 Div. O. S. S. 4 Div. P. R. S.



418 4 Div. R. P. 4 Div. O. S. S. 8 Div. P. R. S.



419 4 Div. R. P. 6 Div. O. S. S. 6 Div. P. R. S.



420 4 Div. R. P. 8 Div. O. S. S. 4 Div. P. R. S.



421 8 Div. R. P. 4 Div. O. S. S. 4 Div. P. R. S.



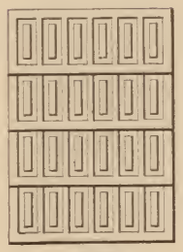
422 8 Div. R. P. 4 Div. O. S. S. 4 Div. P. R. S.



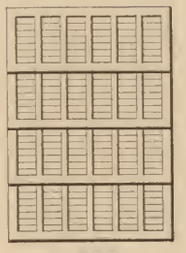
423 4 Div. R. P. 4 Div. O. S. S. 8 Div. P. R. S.

4 Div. 24-40 inches wide.

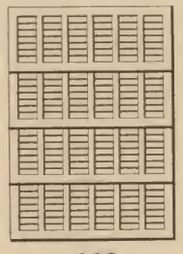
6 Div. 36-60 inches wide.



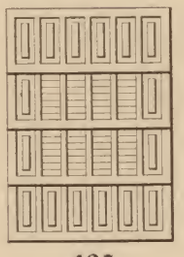
424 24 Div. R. P.



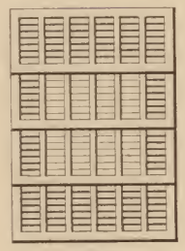
425 24 Div. P. R. S.



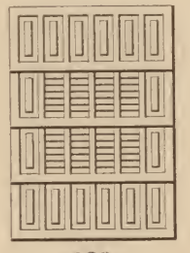
426 24 Div. O. S. S.



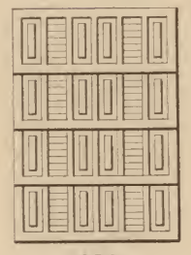
427 16 Div. R. P. 8 Div. P. R. S.



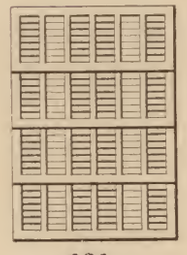
428 16 Div. O. S. S. 8 Div. P. R. S.



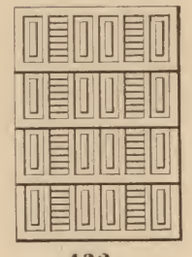
429 16 Div. R. P. 8 Div. O. S. S.



430 16 Div. R. P. 8 Div. P. R. S.



431 16 Div. O. S. S. 8 Div. P. R. S.



432 16 Div. R. P. 8 Div. O. S. S.

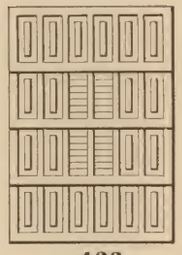
6 Div. 36-60 inches wide.

ARRANGEMENT OF PANELS AND SLATS FOR CLASSES OF BLINDS FOUR SECTIONS IN HEIGHT.

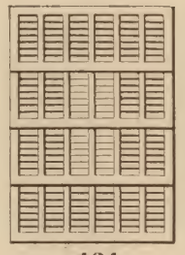
Willer's Columbian (weight-balanced) Sliding Blinds No. 1, and Willer's Standard (spring-balanced) Sliding Blinds No. 1.

Spaces filled with an oblong square, have **Raised Panels** (R. P.); light cross-lines, our **Patent No-Rod Rolling Slats** (P. R. S.); heavy cross-lines, **Open Stationary Slats** (O. S. S.).

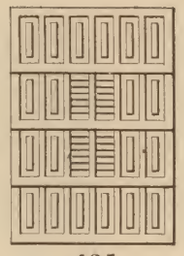
6 Div. 36-60 inches wide.



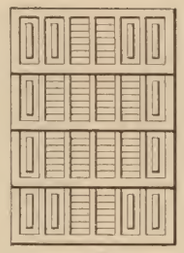
433
20 Div. R. P.
4 Div. P. R. S.



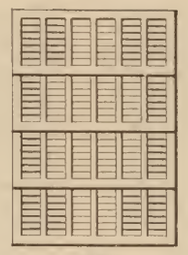
434
20 Div. O. S. S.
4 Div. P. R. S.



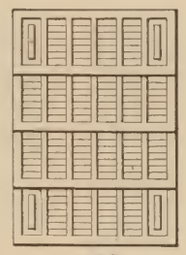
435
20 Div. R. P.
4 Div. O. S. S.



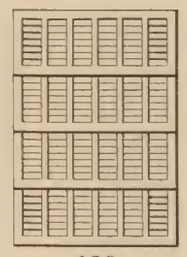
436
12 Div. R. P.
12 Div. P. R. S.



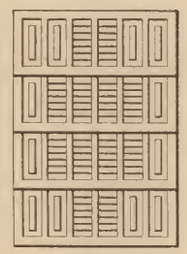
437
12 Div. O. S. S.
12 Div. P. R. S.



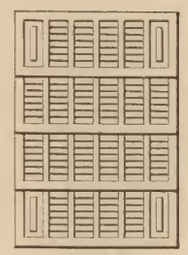
438
4 Div. R. P.
20 Div. P. R. S.



439
4 Div. O. S. S.
20 Div. P. R. S.



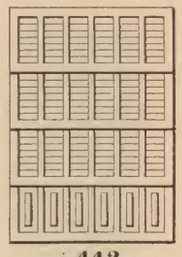
440
12 Div. R. P.
12 Div. O. S. S.



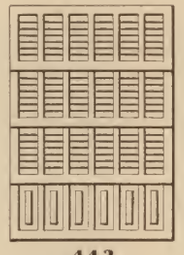
441
4 Div. R. P.
20 Div. O. S. S.

6 Div. 36-60 inches wide.

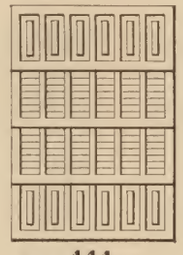
6 Div. 36-60 inches wide.



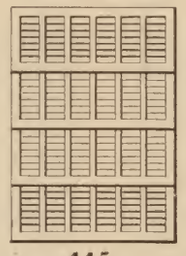
442
6 Div. R. P.
18 Div. P. R. S.



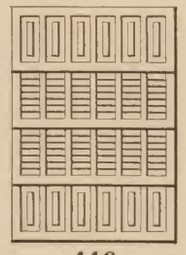
443
6 Div. R. P.
18 Div. O. S. S.



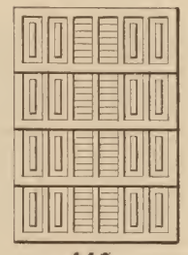
444
12 Div. R. P.
12 Div. P. R. S.



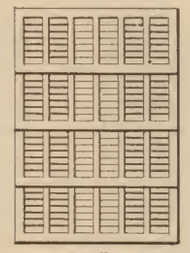
445
12 Div. O. S. S.
12 Div. P. R. S.



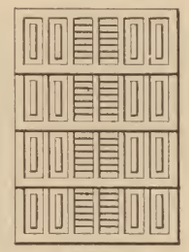
446
12 Div. R. P.
12 Div. O. S. S.



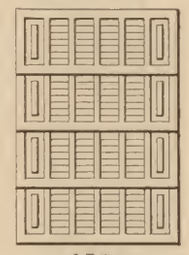
447
16 Div. R. P.
8 Div. P. R. S.



448
16 Div. O. S. S.
8 Div. P. R. S.



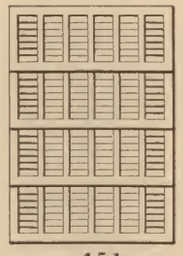
449
16 Div. R. P.
8 Div. O. S. S.



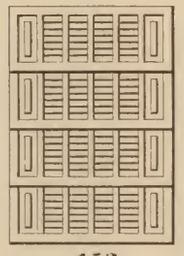
450
8 Div. R. P.
16 Div. P. R. S.

6 Div. 36-60 inches wide.

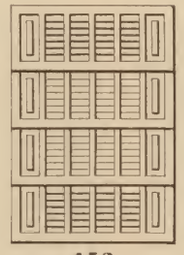
6 Div. 36-60 inches wide.



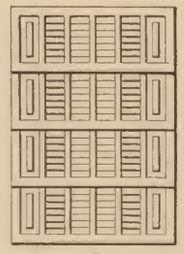
451
8 Div. O. S. S.
16 Div. P. R. S.



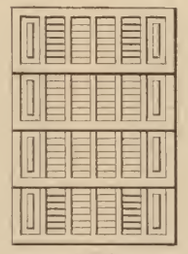
452
8 Div. R. P.
16 Div. O. S. S.



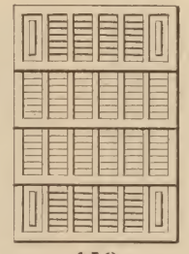
453
8 Div. R. P.
8 Div. O. S. S.
8 Div. P. R. S.



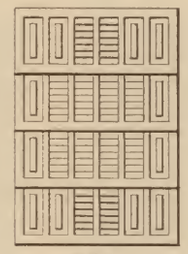
454
8 Div. R. P.
8 Div. O. S. S.
8 Div. P. R. S.



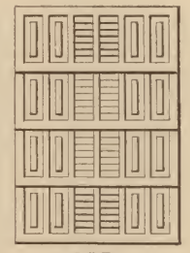
455
8 Div. R. P.
4 Div. O. S. S.
12 Div. P. R. S.



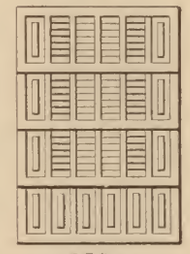
456
4 Div. R. P.
8 Div O. S. S.
12 Div. P. R. S.



457
12 Div. R. P.
4 Div. O. S. S.
8 Div. P. R. S.



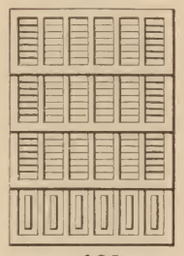
458
16 Div. R. P.
4 Div. O. S. S.
4 Div. P. R. S.



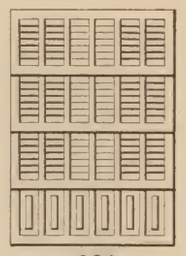
459
12 Div. R. P.
6 Div. O. S. S.
6 Div. P. R. S.

6 Div. 36-60 inches wide.

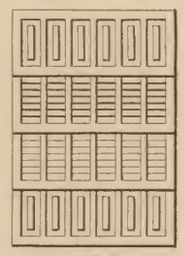
6 Div. 36-60 inches wide.



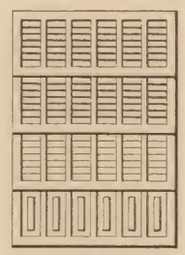
460
6 Div. R. P.
6 Div. O. S. S.
12 Div. P. R. S.



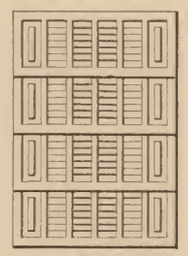
461
6 Div. R. P.
12 Div. O. S. S.
6 Div. P. R. S.



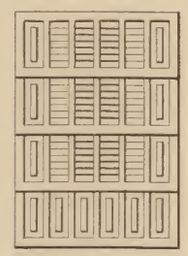
462
12 Div. R. P.
6 Div. O. S. S.
6 Div. P. R. S.



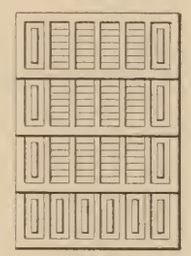
463
6 Div. R. P.
12 Div. O. S. S.
6 Div. P. R. S.



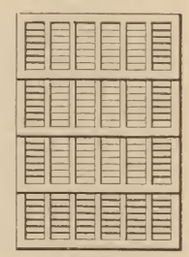
464
8 Div. R. P.
8 Div. O. S. S.
8 Div. P. R. S.



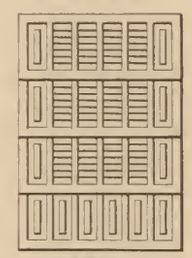
465
12 Div. R. P.
6 Div. O. S. S.
6 Div. P. R. S.



466
12 Div. R. P.
12 Div. P. R. S.



467
12 Div. O. S. S.
12 Div. P. R. S.



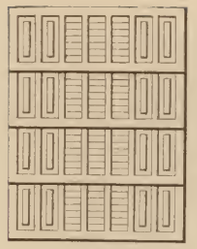
468
12 Div. R. P.
12 Div. O. S. S.

ARRANGEMENT OF PANELS AND SLATS FOR CLASSES OF BLINDS FOUR SECTIONS IN HEIGHT.

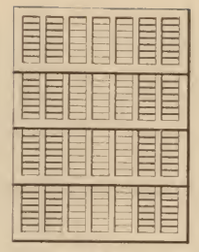
Willer's Columbian (weight-balanced) Sliding Blinds No. 1, and Willer's Standard (spring-balanced) Sliding Blinds No. 1.

Spaces filled with an oblong square, have **Raised Panels** (R. P.); light cross-lines, our **Patent No-Rod Rolling Slats** (P. R. S.); heavy cross-lines, **Open Stationary Slats** (O. S. S.).

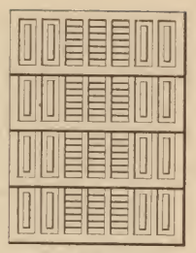
7 Div. 42-70 inches wide.



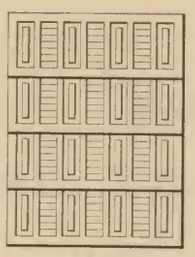
469
16 Div. R. P.
12 Div. P. R. S.



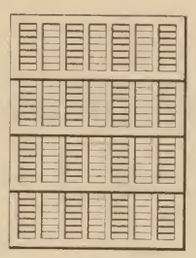
470
16 Div. O. S. S.
12 Div. P. R. S.



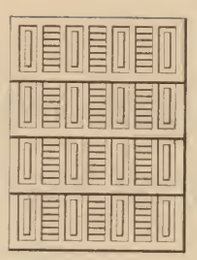
471
16 Div. R. P.
12 Div. O. S. S.



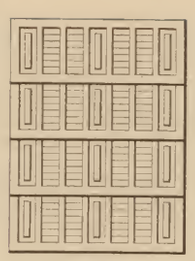
472
16 Div. R. P.
12 Div. P. R. S.



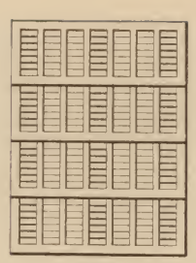
473
16 Div. O. S. S.
12 Div. P. R. S.



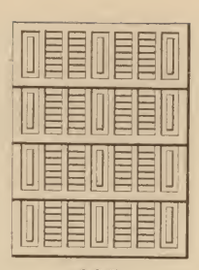
474
16 Div. R. P.
12 Div. O. S. S.



475
12 Div. R. P.
16 Div. P. R. S.



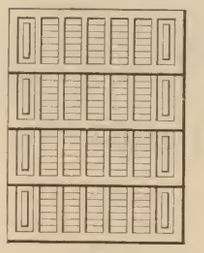
476
12 Div. O. S. S.
16 Div. P. R. S.



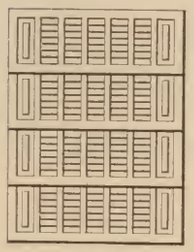
477
12 Div. R P.
16 Div. O. S. S.

7 Div. 42-70 inches wide.

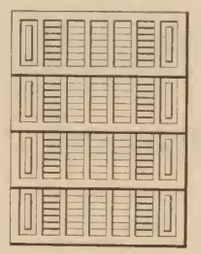
7 Div. 42-70 inches wide.



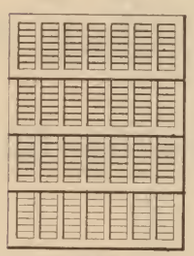
478
8 Div. R. P.
20 Div. P. R. S.



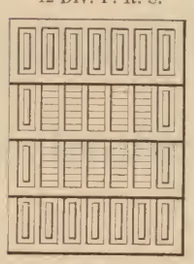
479
8 Div. R. P.
20 Div. O. S. S.



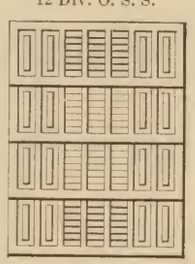
480
8 Div. R. P.
8 Div. O. S. S.
12 Div. P. R. S.



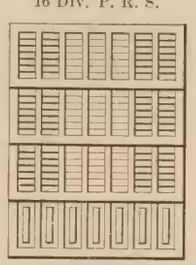
481
21 Div. O. S. S.
7 Div. P. R. S.



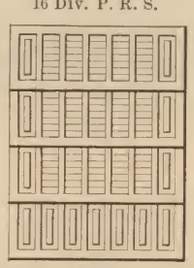
482
18 Div. R. P.
10 Div. P. R. S.



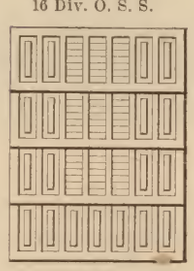
483
16 Div. R. P.
6 Div. O. S. S.
6 Div. P. R. S.



484
7 Div. R. P.
12 Div. O. S. S.
9 Div. P. R. S.



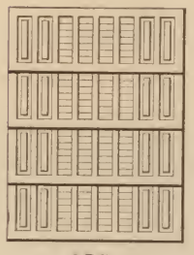
485
13 Div. R. P.
15 Div. P. R. S.



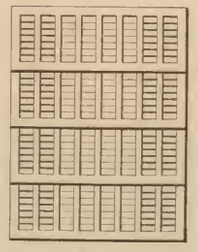
486
19 Div. R. P.
9 Div. P. R. S.

7 Div. 42-70 inches wide.

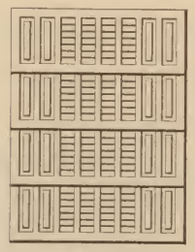
8 Div. 48-80 inches wide.



487
16 Div. R. P.
16 Div. P. R. S.



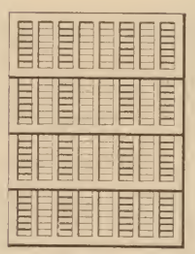
488
16 Div. O. S. S.
16 Div. P. R. S.



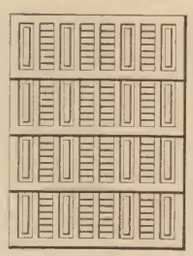
489
16 Div. R. P.
16 Div. O. S. S.



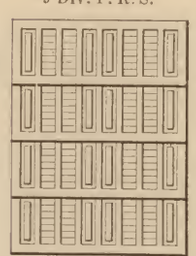
490
16 Div. R. P.
16 Div. P. R. S.



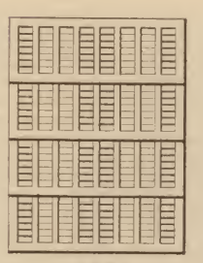
491
16 Div. O. S. S.
16 Div. P. R. S.



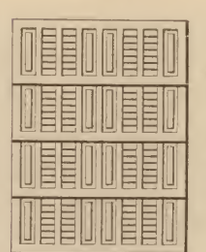
492
16 Div. R. P.
16 Div. O. S. S.



493
16 Div. R. P.
16 Div. P. R. S.



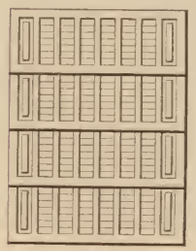
494
16 Div. O. S. S.
16 Div. P. R. S.



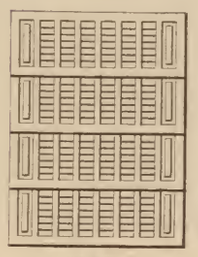
495
16 Div. R. P.
16 Div. O. S. S.

8 Div. 48-80 inches wide.

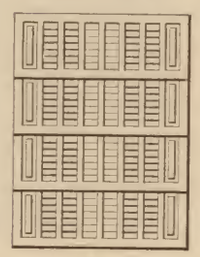
8 Div. 48-80 inches wide.



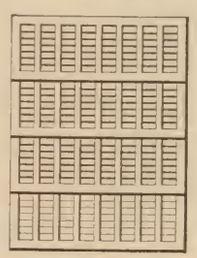
496
8 Div. R. P.
24 Div. P. R. S.



497
8 Div. R. P.
24 Div. O. S. S.



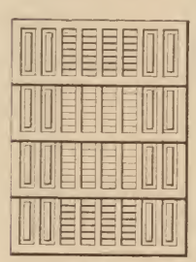
498
8 Div. R. P.
16 Div. O. S. S.
8 Div. P. R. S.



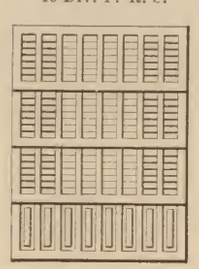
499
24 Div. O. S. S.
8 Div. P. R. S.



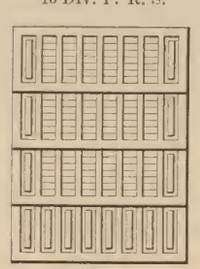
500
20 Div. R. P.
12 Div. P. R. S.



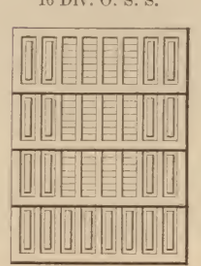
501
16 Div. R. P.
8 Div. O. S. S.
8 Div. P. R. S.



502
8 Div. R. P
12 Div. O. S. S.
12 Div. P. R. S.



503
14 Div. R. P.
18 Div. P. R. S.



504
20 Div. R. P.
12 Div. P. R. S.

8 Div. 48-80 inches wide.

ARRANGEMENT OF PANELS AND SLATS FOR CLASSES OF BLINDS FOUR SECTIONS IN HEIGHT.

Willer's Columbian (weight-balanced) Sliding Blinds No. 1, and Willer's Standard (spring-balanced) Sliding Blinds No. 1.

Spaces filled with an oblong square, have **Raised Panels** (R. P.); light cross-lines, our **Patent No-Rod Rolling Slats** (P. R. S.); heavy cross-lines, **Open Stationary Slats** (O. S. S.).

DESCRIPTION AND ILLUSTRATIONS OF GRADE

AND ARRANGEMENT OF PANELS AND SLATS

FOR

Willer's Columbian (weight-balanced) Sliding Blinds No. 2, and Willer's Standard (spring-balanced) Sliding Blinds No. 2.

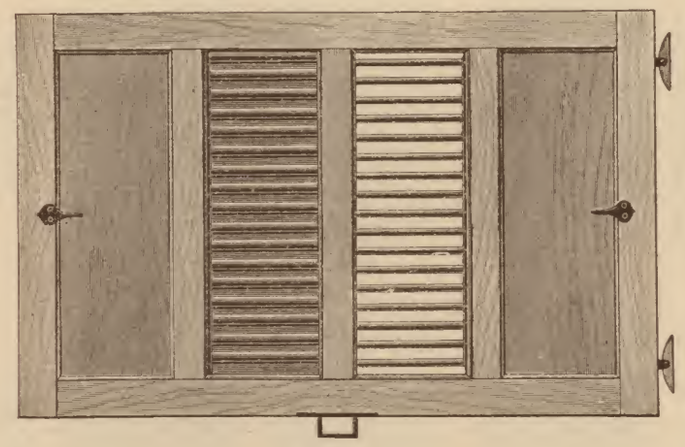


Fig. 7.

Showing the appearance of a section of Blind in this grade, the two outside divisions filled with **Flat Panels** (F. P.), and the two inside divisions with our **Patent No-Rod Rolling Slats** (P. R. S.), illustrating, among others, the appearance of each section shown in set No. 641, Arrangement of Panels and Slats.

THESE two kinds of Blinds differ also only in their methods of balancing, the first being balanced by weights and the other by springs; in all other respects they are identically the same. This grade has our **Patent No-Rod Rolling Slats** only in a part of an entire set of Blinds; the balance must be filled with either **Flat Panels** (F. P.) or with **Closed Stationary Slats** (C. S. S.), or with a combination of both. The Blinds are scant five-eighths of an inch thick, the same as in grade No. 1, and have mortised and tenoned joints and moulded (cove) edges all around each division or panel.

Each section of Blind is trimmed with all the necessary hardware, the same as in No. 1, only that in this grade it is furnished of Iron, Berlin Bronze or Boston finish (polished and lacquered on iron). When Genuine Bronze or any other finish of hardware is used in this grade, such hardware will cost extra.

The spring used in this grade of Blinds, is our Standard Sliding Blind Spring No. 2, illustrated and described elsewhere. Willer's Improved Sliding Blind Spring No. 1 will be used only when so specially ordered, and for which also an extra charge will be made.

We furnish this grade in two styles of Finishes: **1st, Plain Finish,** meaning a plain varnished surface, gloss finish, not rubbed; **2nd, Cabinet Finish,** meaning the same finish as 1st, afterwards rubbed down with pumice stone and oil to a smooth dead finish.

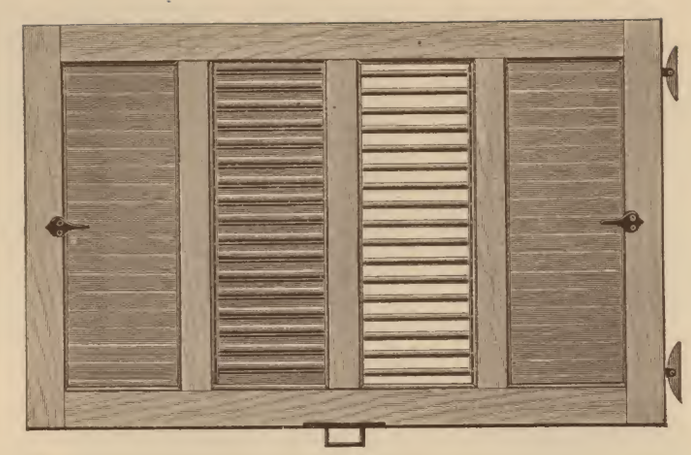


Fig. 8.

Showing the appearance of a section of Blind in this grade, the two outside divisions filled with **Closed Stationary Slats** (C. S. S.), and the two inside divisions with our **Patent No-Rod Rolling Slats** (P. R. S.), illustrating, among others, the appearance of each section shown in set No. 642, Arrangement of Panels and Slats.

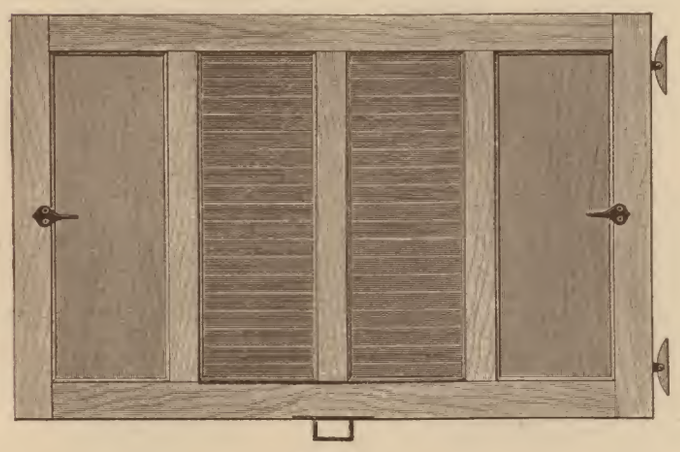
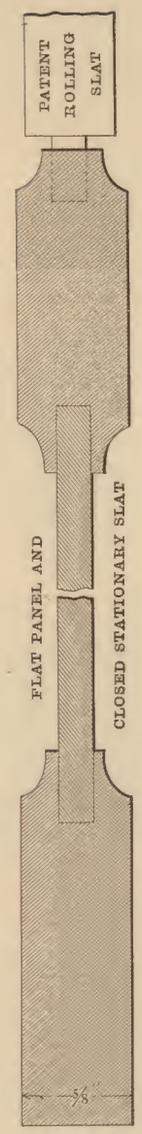
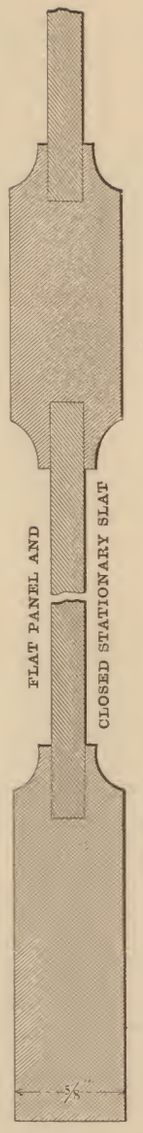


Fig. 10.

Showing the appearance of a section of Blind in this grade, the two outside divisions filled with **Flat Panels** (F. P.), and the two inside divisions with **Closed Stationary Slats** (C. S. S.), illustrating, among others, the appearance of two out of the three sections shown in set No. 645, Arrangement of Panels and Slats.



Cross-Section No. 52.



Cross-Section No. 53.

Cross-Section No. 52 is a full-size section through sections of Blind, Fig. 7 and Fig. 8.

Cross-Section No. 53 is a full-size section through sections of Blind, Fig. 9, Fig. 10 and Fig. 11.

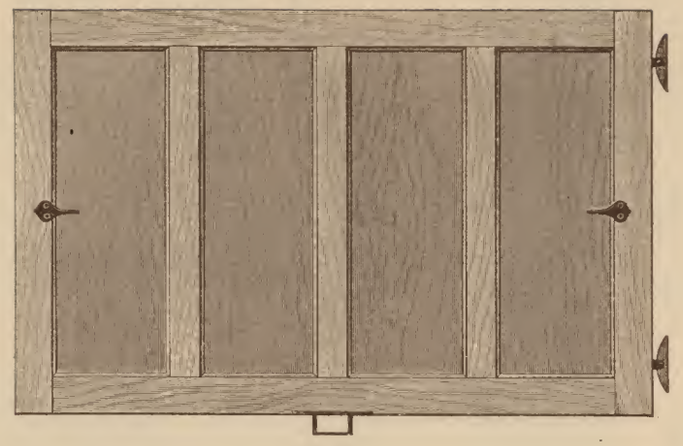


Fig. 9.

Showing the appearance of a section of Blind in this grade, entirely filled with **Flat Panels** (F. P.), illustrating, among others, the appearance of two out of the three sections shown in set No. 643, Arrangement of Panels and Slats.

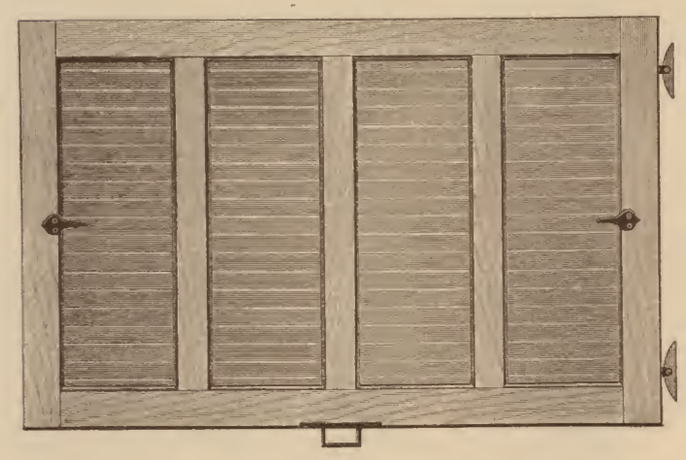
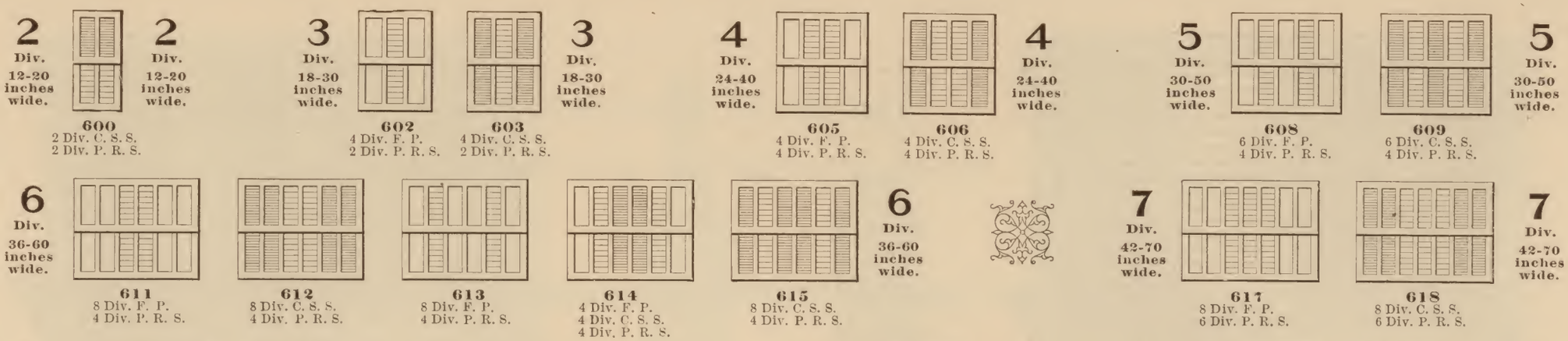


Fig. 11.

Showing the appearance of a section of Blind in this grade, entirely filled with **Closed Stationary Slats** (C. S. S.), illustrating, among others, the appearance of two out of the three sections shown in set No. 647, Arrangement of Panels and Slats.

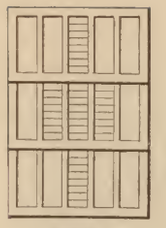


ARRANGEMENT OF PANELS AND SLATS FOR CLASSES OF BLINDS TWO AND THREE SECTIONS IN HEIGHT.

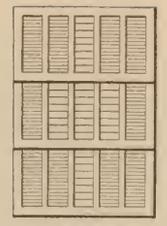
Willer's Columbian (weight-balanced) Sliding Blinds No. 2, and Willer's Standard (spring-balanced) Sliding Blinds No. 2.

Blank spaces have **Flat Panels** (F. P.); spaces with light cross-lines, our **Patent No-Rod Rolling Slats** (P. R. S); narrow cross-lines, **Closed Stationary Slats** (C. S. S.).

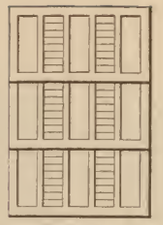
5 Div. 30-50 inches wide.



652
10 Div. F. P.
5 Div. P. R. S.



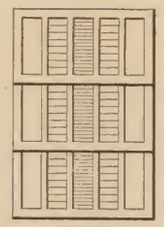
653
10 Div. C. S. S.
5 Div. P. R. S.



654
9 Div. F. P.
6 Div. P. R. S.



655
9 Div. C. S. S.
6 Div. P. R. S.



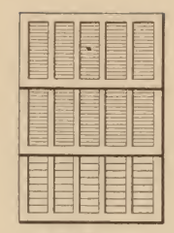
656
6 Div. F. P.
3 Div. C. S. S.
6 Div. P. R. S.



657
6 Div. F. P.
6 Div. C. S. S.
3 Div. P. R. S.



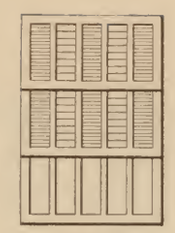
658
12 Div. C. S. S.
3 Div. P. R. S.



659
10 Div. C. S. S.
5 Div. P. R. S.



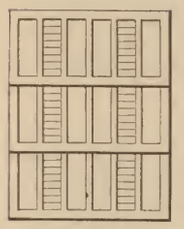
660
5 Div. F. P.
5 Div. C. S. S.
5 Div. P. R. S.



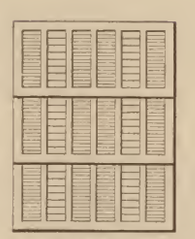
661
5 Div. F. P.
6 Div. C. S. S.
4 Div. P. R. S.

5 Div. 30-50 inches wide.

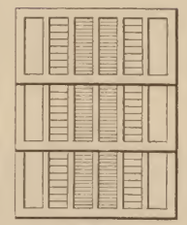
6 Div. 36-60 inches wide.



663
12 Div. F. P.
6 Div. P. R. S.



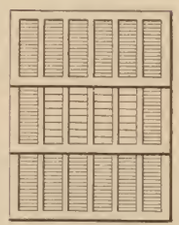
664
12 Div. C. S. S.
6 Div. P. R. S.



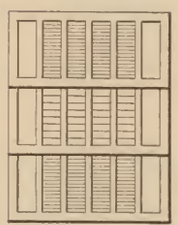
665
6 Div. F. P.
6 Div. C. S. S.
6 Div. P. R. S.



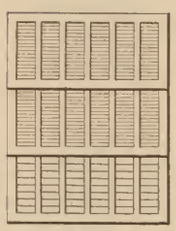
666
14 Div. F. P.
4 Div. P. R. S.



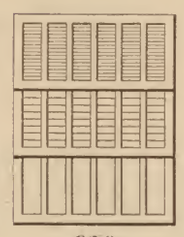
667
14 Div. C. S. S.
4 Div. P. R. S.



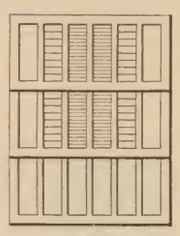
668
6 Div. F. P.
8 Div. C. S. S.
4 Div. P. R. S.



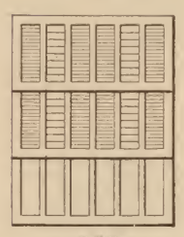
669
12 Div. C. S. S.
6 Div. P. R. S.



670
6 Div. F. P.
6 Div. C. S. S.
6 Div. P. R. S.



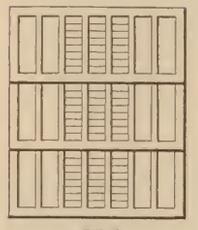
671
10 Div. F. P.
4 Div C. S. S.
4 Div. P. R. S.



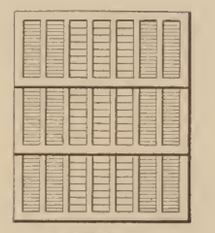
672
6 Div. F. P.
8 Div. C. S. S.
4 Div. P. R. S.

6 Div. 36-60 inches wide.

7 Div. 42-70 inches wide.



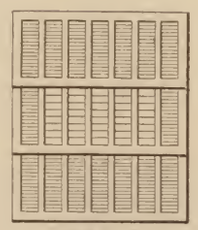
674
12 Div. F. P.
9 Div. P. R. S.



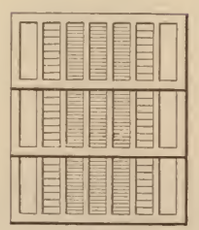
675
12 Div. C. S. S.
9 Div. P. R. S.



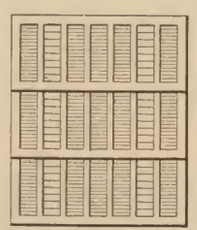
676
6 Div. F. P.
10 Div. C. S. S.
5 Div. P. R. S.



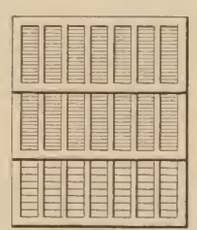
677
16 Div. C. S. S.
5 Div. P. R. S.



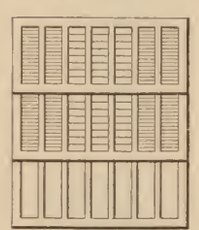
678
6 Div. F. P.
9 Div. C. S. S.
6 Div. P. R. S.



679
15 Div. C. S. S.
6 Div. P. R. S.



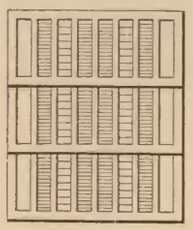
680
14 Div. C. S. S.
7 Div. P. R. S.



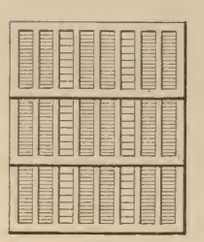
681
7 Div. F. P.
8 Div. C. S. S.
6 Div. P. R. S.

7 Div. 42-70 inches wide.

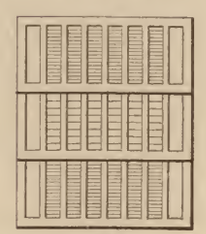
8 Div. 48-80 inches wide.



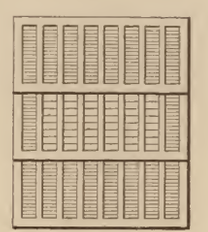
683
6 Div. F. P.
12 Div. C. S. S.
6 Div. P. R. S.



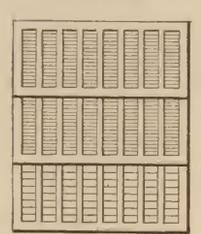
684
18 Div. C. S. S.
6 Div. P. R. S.



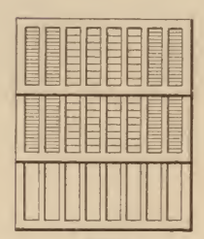
685
6 Div. F. P.
12 Div. C. S. S.
6 Div. P. R. S.



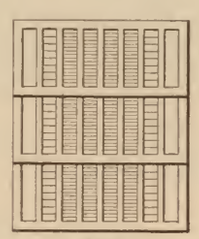
686
18 Div. C. S. S.
6 Div. P. R. S.



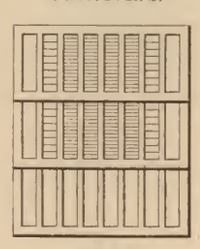
687
16 Div. C. S. S
8 Div. P. R. S.



688
8 Div. F. P.
8 Div. C. S. S.
8 Div. P. R. S.



689
6 Div. F. P.
12 Div. C. S. S.
6 Div. P. R. S.



690
12 Div. F. P.
8 Div. C. S. S.
4 Div. P. R. S.

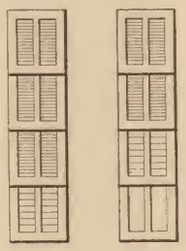
8 Div. 48-80 inches wide.

ARRANGEMENT OF PANELS AND SLATS FOR CLASSES OF BLINDS THREE SECTIONS IN HEIGHT.

Willer's Columbian (weight-balanced) Sliding Blinds No. 2, and Willer's Standard (spring-balanced) Sliding Blinds No. 2.

Blank Spaces have **Flat Panels** (F. P.); spaces with light cross-lines, our **Patent No-Rod Rolling Slats** (P. R. S.); narrow cross-lines, **Closed Stationary Slats** (C. S. S.).

2 Div. 12-20 inches wide.



700 6-C. S. S. 2-P. R. S.

701 2-F. P. 4-C. S. S. 2-P. R. S.

2 Div. 12-20 inches wide.

3 Div. 18-30 inches wide.



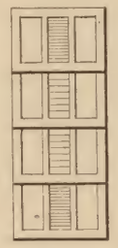
703 8 Div. F. P. 4 Div. P. R. S.



704 8 Div. C. S. S. 4 Div. P. R. S.



705 10 Div. F. P. 2 Div. P. R. S.



706 8 Div. F. P. 2 Div. C. S. S. 2 Div. P. R. S.



707 10 Div. C. S. S. 2 Div. P. R. S.



708 4 Div. F. P. 6 Div. C. S. S. 2 Div. P. R. S.



709 9 Div. C. S. S. 3 Div. P. R. S.



710 3 Div. F. P. 6 Div. C. S. S. 3 Div. P. R. S.



711 3 Div. F. P. 8 Div. C. S. S. 1 Div. P. R. S.

3 Div. 18-30 inches wide.

4 Div. 24-40 inches wide.



713 8 Div. F. P. 8 Div. P. R. S.



714 8 Div. C. S. S. 8 Div. P. R. S.



715 12 Div. F. P. 4 Div. P. R. S.



716 8 Div. F. P. 4 Div. C. S. S. 4 Div. P. R. S.



717 12 Div. C. S. S. 4 Div. P. R. S.



718 12 Div. C. S. S. 4 Div. P. R. S.



719 4 Div. F. P. 8 Div. C. S. S. 4 Div. P. R. S.



720 10 Div. F. P. 6 Div. P. R. S



721 4 Div. F. P. 6 Div. C. S. S. 6 Div. P. R. S.



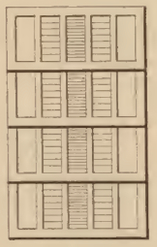
722 4 Div. F. P. 10 Div. C. S. S. 2 Div. P. R. S.

4 Div. 24-40 inches wide.

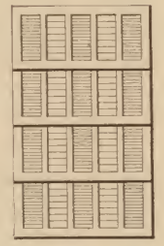
5 Div. 30-50 inches wide.



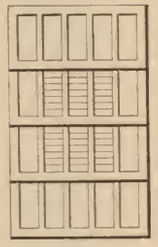
724 12 Div. F. P. 8 Div. P. R. S.



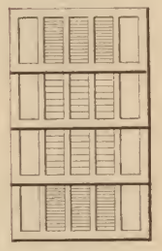
725 8 Div. F. P. 4 Div. C. S. S. 8 Div. P. R. S.



726 12 Div. C. S. S. 8 Div. P. R. S.



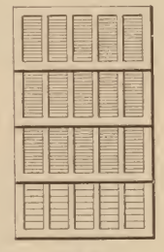
727 14 Div. F. P. 6 Div. P. R. S.



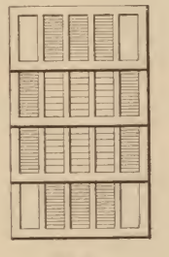
728 8 Div. F. P. 6 Div. C. S. S. 6 Div. P. R. S.



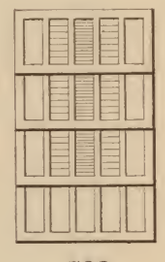
729 14 Div. C. S. S. 6 Div. P. R. S.



730 15 Div. C. S. S. 5 Div. P. R. S.



731 4 Div. F. P. 10 Div. C. S. S. 6 Div. P. R. S.



732 11 Div. F. P. 3 Div. C. S. S. 6 Div. P. R. S.



733 5 Div. F. P. 9 Div. C. S. S. 6 Div. P. R. S.

5 Div. 30-50 inches wide.

ARRANGEMENT OF PANELS AND SLATS FOR CLASSES OF BLINDS FOUR SECTIONS IN HEIGHT.

Willer's Columbian (weight-balanced) Sliding Blinds No. 2, and Willer's Standard (spring-balanced) Sliding Blinds No. 2.

Blank Spaces have **Flat Panels** (F. P.); spaces with light cross-lines, our **Patent No-Rod Rolling Slats** (P. R. S.); narrow cross-lines, **Closed Stationary Slats** (C. S. S.).

6 Div. 36-60 inches wide.



735 16 Div. F. P. 8 Div. P. R. S.

736 8 Div. F. P. 8 Div. C. S. S. 8 Div. P. R. S.

737 16 Div. C. S. S. 8 Div. P. R. S.

738 8 Div. F. P. 8 Div. C. S. S. 8 Div. P. R. S.

739 16 Div. C. S. S. 8 Div. P. R. S.

740 4 Div. F. P. 12 Div. C. S. S. 8 Div. P. R. S.

741 18 Div. C. S. S. 6 Div. P. R.S.

742 6 Div. F. P. 14 Div. C. S. S. 4 Div. P. R. S.

743 12 Div. F. P. 6 Div. C. S. S. 6 Div. P. R. S.

744 6 Div. F. P. 12 Div. C. S. S. 6 Div. P. R. S.

6 Div. 36-60 inches wide.

7 Div. 42-70 inches wide.



745 16 Div. F. P. 12 Div. P. R. S.

746 16 Div. C. S. S. 12 Div. P. R. S.

747 8 Div. F. P. 10 Div. C. S. S. 10 Div. P. R. S.

748 8 Div. F. P. 12 Div. C. S. S. 8 Div. P. R. S.

749 20 Div. C. S. S. 8 Div. P. R. S.

750 21 Div. C. S. S. 7 Div. P. R. S.

751 22 Div. C. S. S. 6 Div. P. R. S.

752 7 Div. F. P. 15 Div. C. S. S. 6 Div. P. R. S.

753 13 Div. F. P. 9 Div. C. S. S. 6 Div. P. R. S.

7 Div. 42-70 inches wide.

8 Div. 48-80 inches wide.



754 16 Div. F. P. 8 Div. C. S. S. 8 Div. P. R. S.

755 24 Div. C. S. S. 8 Div. P. R. S.

756 8 Div. F. P. 16 Div. C. S. S. 8 Div. P. R. S.

757 24 Div. C. S. S. 8 Div. P. R. S.

758 24 Div. C. S. S. 8 Div. P. R. S.

759 4 Div. F. P. 16 Div. C. S. S. 12 Div. P. R. S.

760 8 Div. F. P. 18 Div. C. S. S. 6 Div. P. R. S.

761 8 Div. F. P. 18 Div. C. S. S. 6 Div. P. R. S.

762 14 Div. F. P. 12 Div. C. S. S. 6 Div. P. R. S.

8 Div. 48-80 inches wide.

ARRANGEMENT OF PANELS AND SLATS FOR CLASSES OF BLINDS FOUR SECTIONS IN HEIGHT.

Willer's Columbian (weight-balanced) Sliding Blinds No. 2, and Willer's Standard (spring-balanced) Sliding Blinds No. 2.

Blank spaces have **Flat Panels** (F. P.); spaces with light cross-lines, our **Patent No-Rod Rolling Slats** (P. R. S.); narrow cross-lines, **Closed Stationary Slats** (C. S. S.).

DESCRIPTION AND ILLUSTRATIONS OF GRADE,

AND ARRANGEMENT OF PANELS AND SLATS

FOR

Willer's Columbian (weight-balanced) Sliding Blinds No. 3, and Willer's Standard (spring-balanced) Sliding Blinds No. 3.

THESE two kinds of Blinds differ also only in their methods of balancing, the first being balanced by weights and the other by springs; in all other respects they are identically the same.

This grade is composed entirely of either **Flat Panels** (F. P.) or **Closed Stationary Slats** (C. S. S.), or a combination of both. No Open or Rolling Slats are used in any part of the Blind. It is practically a sliding shutter.

The Blinds are scant five-eighths of an inch thick, the same as in grades Nos. 1 and 2, have mortised and tenoned joints and moulded (cove) edges all around each division or panel. Each section of Blind is trimmed with all the necessary hardware of Iron, Boston or Berlin Bronze finish, the same as used for Blinds in grade No. 2. When Genuine Bronze or any other finish of hardware is used in this grade, such hardware will cost extra.

The spring that we use in this grade of Blinds, is our Standard Sliding Blind Spring No. 2, illustrated and described elsewhere. Willer's Improved Sliding Blind Spring No. 1 will be used only when so specially ordered, and for which also an extra charge will be made.

We furnish this grade in two styles of Finishes: **1st, Plain Finish,** meaning a plain varnished surface, gloss finish, not rubbed; **2d, Cabinet Finish,** meaning the same finish as 1st, afterwards rubbed down with pumice-stone and oil to a smooth dead finish.

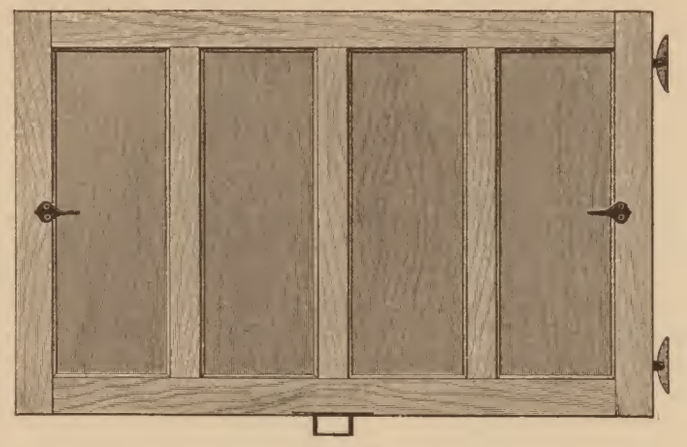


Fig. 12.

Showing the appearance of a section of Blind in this grade, entirely filled with **Flat Panels** (F. P.); illustrating, among others, the appearance of each section shown in set No. 838, Arrangement of Panels and Slats.

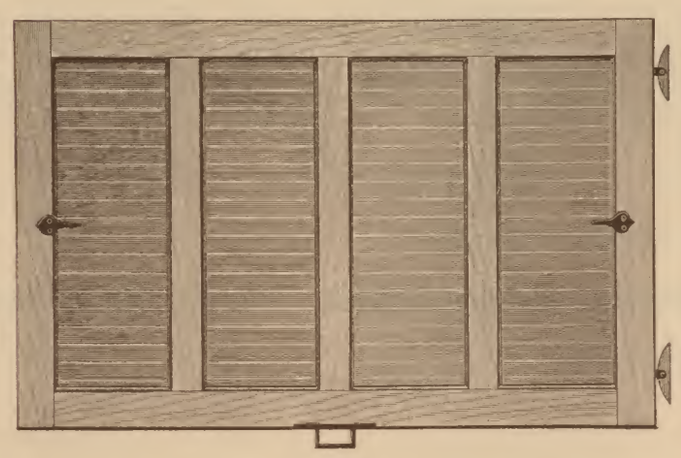
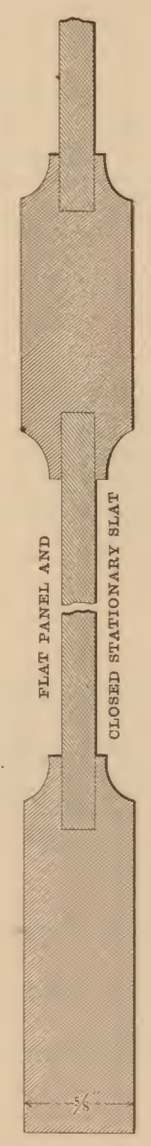


Fig. 14.

Showing the appearance of a section of Blind in this grade, entirely filled with **Closed Stationary Slats** (C. S. S.); illustrating, among others, the appearance of each section shown in set No. 839, Arrangement of Panels and Slats.



Cross-Section No. 54.

This is a full-size section through all the sections of Blinds shown on this page, Figs. 12, 13 and 14.

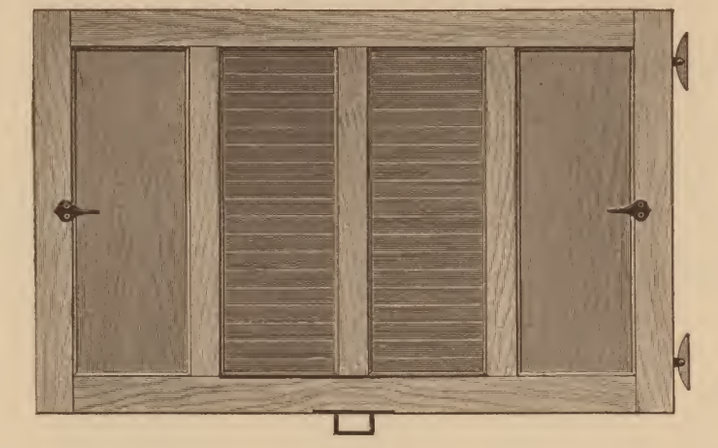
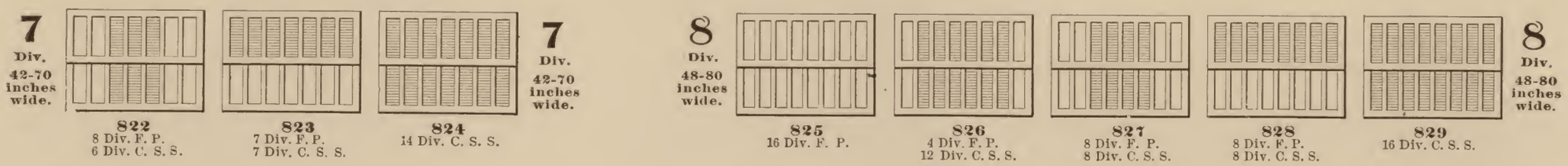


Fig. 13.

Showing the appearance of a section of Blind in this grade, the two outside divisions filled with **Flat Panels** (F. P.), and the two inside divisions with **Closed Stationary Slats** (C. S. S.); illustrating, among others, the appearance of each section shown in set No. 841, Arrangement of Panels and Slats.

Printed Order Blanks, covering all kinds and grades of Sliding Blinds that we make, will be furnished upon application to all persons desiring to favor us with their orders.



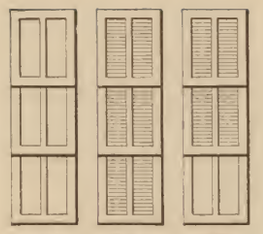


ARRANGEMENT OF PANELS AND SLATS FOR CLASSES OF BLINDS TWO SECTIONS IN HEIGHT.

Willer's Columbian (weight-balanced) Sliding Blinds No. 3, and Willer's Standard (spring-balanced) Sliding Blinds No. 3.

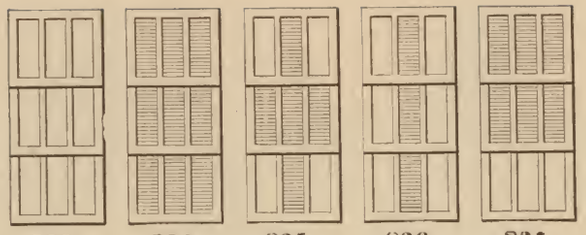
Blank spaces have **Flat Panels** (F. P.); other spaces have **Closed Stationary Slats** (C. S. S.)

2 Div. 12-20 inches wide.



830 6-F. P. | **831** 6-C.S.S. | **832** 2-F. P. 4-C.S.S.

3 Div. 18-30 inches wide.



833 9 Div.F.P. | **834** 9 Div.C.S.S. | **835** 4 Div.F.P. 5 Div.C.S.S. | **836** 6 Div. F. P. 3 Div. C.S.S. | **837** 3 Div. F. P. 6 Div. C.S.S.

4 Div. 24-40 inches wide.



838 12 Div. F. P. | **839** 12 Div. C S. S. | **840** 4 Div. F. P. 8 Div. C. S. S. | **841** 6 Div. F. P. 6 Div. C. S. S. | **842** 4 Div. F. P. 8 Div. C. S. S.

4 Div. 24-40 inches wide.

5 Div. 30-50 inches wide.



843 15 Div. F. P. | **844** 15 Div. C. S. S. | **845** 6 Div. F. P. 9 Div. C. S. S. | **846** 5 Div.F. P. 10 Div. C. S. S.

847 18 Div. F. P. | **848** 18 Div. C. S. S. | **849** 6 Div. F. P. 12 Div. C. S. S. | **850** 6 Div. F. P. 12 Div. C. S. S.

6 Div. 36-60 inches wide.

7 Div. 42-70 inches wide.



851 21 Div. F. P. | **852** 21 Div. C. S S. | **853** 6 Div. F. P. 15 Div. C. S. S. | **854** 12 Div. F. P. 9 Div. C. S. S. | **855** 12 Div. F. P. 9 Div. C. S. S. | **856** 7 Div. F. P. 14 Div. C. S. S.

7 Div. 42-70 inches wide.

8 Div. 48-80 inches wide.



857 24 Div. F. P. | **858** 24 Div. C. S. S. | **859** 6 Div. F. P. 18 Div. C. S. S. | **860** 12 Div. F. P. 12 Div. C. S. S. | **861** 12 Div. F. P. 12 Div. C. S. S. | **862** 8 Div. F. P. 16 Div. C. S. S.

8 Div. 48-80 inches wide.

ARRANGEMENT OF PANELS AND SLATS FOR CLASSES OF BLINDS THREE SECTIONS IN HEIGHT.

Willer's Columbian (weight=balanced) Sliding Blinds No. 3, and Willer's Standard (spring=balanced) Sliding Blinds No. 3.

Blank spaces have **Flat Panels** (F. P.); other spaces have **Closed Stationary Slats** (C. S. S.)

2 Div. 12-20 inches wide.



863 8-F. P.
864 8-C.S.S.
865 2-F. P. 6-C.S.S.

3 Div. 18-30 inches wide.



866 12 Div. F. P.
867 12 Div. C.S.S.
868 4 Div. F. P. 8 Div. C.S.S.
869 8 Div. F. P. 4 Div. C.S.S.
870 3 Div. F. P. 9 Div. C.S.S.

4 Div. 24-40 inches wide.



871 16 Div. F. P.
872 16 Div. C. S. S.
873 4 Div. F. P. 12 Div. C. S. S.
874 8 Div. F. P. 8 Div. C. S. S.
875 4 Div. F. P. 12 Div. C. S. S.

4 Div, 24-40 inches wide.

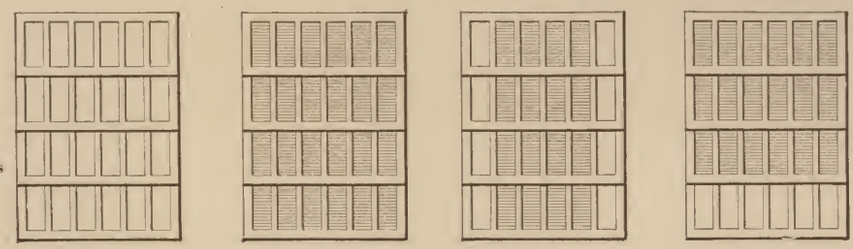
5 Div. 30-50 inches wide.



876 20 Div. F. P.
877 20 Div. C. S. S.
878 8 Div, F. P. 12 Div. C. S. S.
879 5 Div. F. P. 15 Div. C. S. S.

5 Div. 30-50 inches wide.

6 Div. 36-60 inches wide.



880 24 Div. F. P.
881 24 Div. C. S. S.
882 8 Div F. P. 16 Div. C. S. S.
883 6 Div. F. P. 18 Div. C. S. S.

6 Div. 36-60 inches wide.

7 Div. 42-70 inches wide.



884 28 Div. F. P.
885 28 Div. C. S. S.
886 8 Div. F. P. 20 Div. C. S. S.
887 16 Div. F. P. 12 Div. C. S. S.
888 16 Div. F. P. 12 Div. C. S. S.
889 7 Div. F. P. 21 Div. C. S. S.

7 Div. 42-70 inches wide.

8 Div. 48-80 inches wide.



890 32 Div. F. P.
891 32 Div. C. S. S.
892 8 Div. F. P. 24 Div. C. S. S.
893 16 Div. F. P. 16 Div. C. S. S.
894 16 Div. F. P. 16 Div. C. S. S.
895 8 Div. F. P. 24 Div. C. S. S.

8 Div. 48-80 inches wide.

ARRANGEMENT OF PANELS AND SLATS FOR CLASSES OF BLINDS FOUR SECTIONS IN HEIGHT.

Willer's Columbian (weight-balanced) Sliding Blinds No. 3, and Willer's Standard (spring-balanced) Sliding Blinds No. 3.

Blank spaces have **Flat Panels** (F. P.); other spaces have **Closed Stationary Slats** (C. S. S.)



A SERIES OF MILWAUKEE, WISCONSIN, RESIDENCES,

Furnished with Willer Blinds or Screens.

Residence of Chas. D. Crane, 180 31st St.,
of Crane & Barkhausen, Architects.

The Hodges Flats, Ninth, between Cedar and State Sts. L. F. Hodges, Owner.
Crane & Barkhausen, Architects.

Residence of Mrs. Louise Schandein, 2400 Grand Ave.
Fred. Velguth, Architect.

Residence of Conrad Trimborn, 1428 Cedar St.
Crane & Barkhausen, Architects.

Residence of Fred. C. Pritzlaff, 1022 Grand Ave.
Ass't Sec'y and Treas'r John Pritzlaff Hardware Co.

DESCRIPTION AND ILLUSTRATIONS OF GRADE,

AND ARRANGEMENT OF PANELS AND SLATS

FOR

Willer's Common (spring=balanced) Sliding Blinds No. 4.

THIS Grade is composed of sections of blinds, scant one-half of an inch in thickness only; each section has morticed and tenoned joints and square edges all around each division or panel. Only one section in each set, the inner one, or the one facing the room, is filled with **Regular Rolling Slats** (R. R. S) or a combination of **Regular Rolling Slats** and **Flat Panels** (F. P.); all other sections being filled with either **Closed Stationary Slats** (C. S. S.) or a combination of **Closed Stationary Slats** and **Flat Panels.**

The **Regular Rolling Slats** are operated by a wooden rod in front of the slat, as shown and described on page 54, Fig. 2.

Each section is trimmed with two round lifting plates or hollow shells (Lifting Plate No. 5, page 56), stamped out of light sheet bronze. An oblong lifting plate (Lifting Plate No. 8, page 56), made of the same material, will be furnished only upon special order and charged for extra.

The spring used in this grade of blinds, is our Standard Blind Spring No. 3, described and illustrated on page 58.

We furnish this grade in two styles of finishes: **1st, Plain Finish,** meaning a plain varnished surface, gloss finish, not rubbed; **2nd, Cabinet Finish,** meaning the same finish as 1st, afterwards rubbed down with pumice stone and oil to a dead smooth finish.



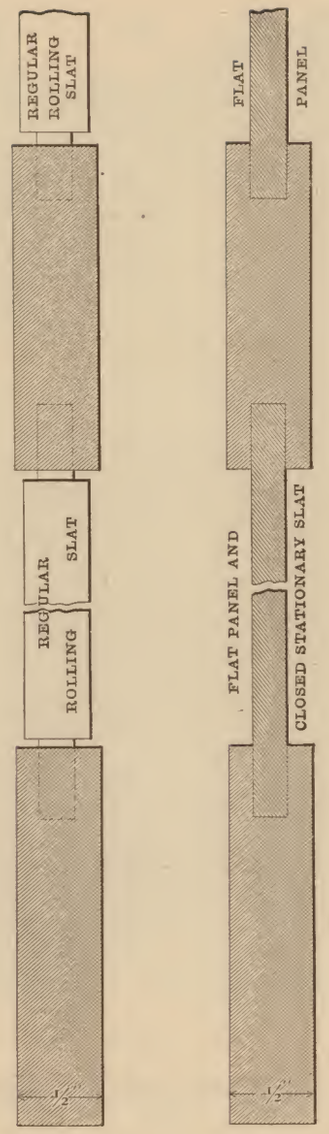
Fig. 15.

Showing the appearance of a section of Blind in this grade, the two outside divisions filled with **Flat Panels** (F. P.), and the two inside divisions with **Regular Rolling Slats** (R. R. S.); illustrating, among others, the appearance of the lower or inner section shown in set No. 914, Arrangement of Panels and Slats.



Fig. 17.

Showing the appearance of a section of Blind in this grade, entirely filled with **Closed Stationary Slats** (C. S. S.); illustrating, among others, the appearance of the two upper sections shown in set No. 913, Arrangement of Panels and Slats.



Cross-Section No. 55. Cross-Section No. 56.

Cross-Section No. 55 is a full-size section through section of Blind, Fig. 16.

Cross-Section No. 56 is a full-size section through sections of Blind, Fig. 17 and Fig. 18.



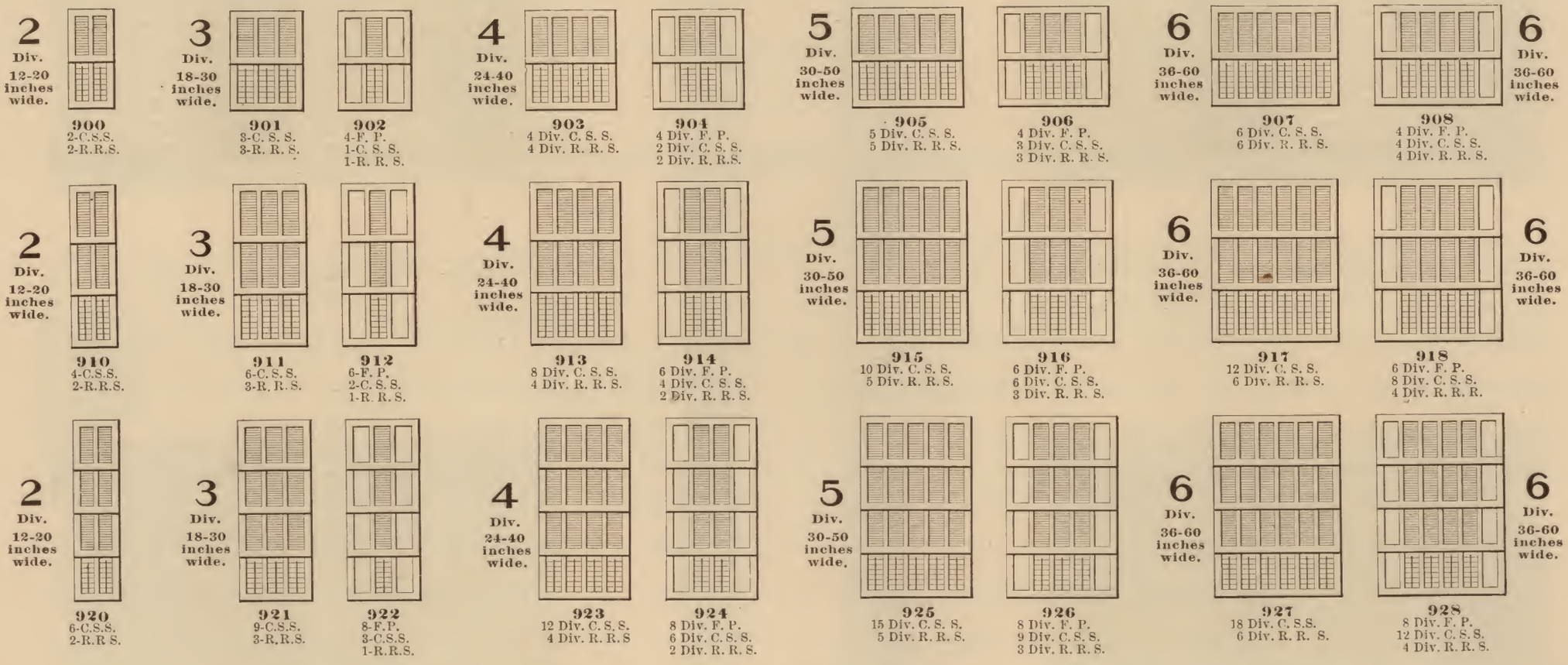
Fig. 16.

Showing the appearance of a section of Blind in this grade, entirely filled with **Regular Rolling Slats** (R. R. S.); illustrating, among others, the appearance of the lower or inner section shown in set No. 913, Arrangement of Panels and Slats.



Fig. 18.

Showing the appearance of a section of Blind in this grade, the two outside divisions filled with **Flat Panels** (F. P.), and the two inside divisions with **Closed Stationary Slats** (C. S. S.); illustrating, among others, the appearance of the two upper sections shown in set No. 914, Arrangement of Panels and Slats.



ARRANGEMENT OF PANELS AND SLATS FOR CLASSES OF BLINDS TWO, THREE AND FOUR SECTIONS IN HEIGHT.

Willer's Common (spring-balanced) Sliding Blinds No. 4.

Blank spaces have **Flat Panels** (F. P.); narrow cross-lines, **Closed Stationary Slats** (C. S. S.); light cross-lines with perpendicular line, **Regular Rolling Slats,** (R. R. S.) with wooden rod in front to operate the slats with.



A SERIES OF ST. LOUIS, MISSOURI, RESIDENCES.

Furnished with Willer Blinds or Screens.

Residence of Oliver A. Hart, Portland Place.
Grable & Weber, Architects.

Residence of J. C. Somerville, 4427 Westminster Place.
Grable & Weber, Architects.

Residence of A. D. Brown, 4550 Lindell Boulevard.
H. E. Roach & Son, Architects.

Residence of A. C. Dallus, 5514 Clemens Ave.
Varney, Woolrych & Pulis, Architects.

Residence of Edward B. Wolff,
4440 Lindell Boulevard.

DESCRIPTION AND ILLUSTRATIONS OF GRADE,

AND ARRANGEMENT OF PANELS AND SLATS

FOR

Willer's Common (spring-balanced) Sliding Blinds No. 5.

THIS Grade is the same as Grade No. 4, except that no Rolling Slats whatever are employed in any of the sections, each section being composed entirely of **Closed Stationary Slats** (C. S. S.), **Flat Panels** (F. P.), or a combination of both. The sections are scant one-half of an inch in thickness and have mortised and tenoned joints and square edges all around each division or panel.

Each section is trimmed with two round lifting plates or hollow shells (Lifting Plate No. 5, page 56), stamped out of light sheet bronze metal. An oblong lifting plate (Lifting Plate No. 8, page 56), made of the same material, will be furnished only upon special order and charged for extra.

The spring used in this grade of blinds, is our Standard Blind Spring No. 3, described and illustrated on page 58.

We furnish this grade in two styles of finishes: **1st, Plain Finish,** meaning a plain varnished surface, gloss finish, not rubbed; **2nd, Cabinet Finish,** meaning the same finish as 1st, afterwards rubbed down with pumice stone and oil to a smooth dead finish.



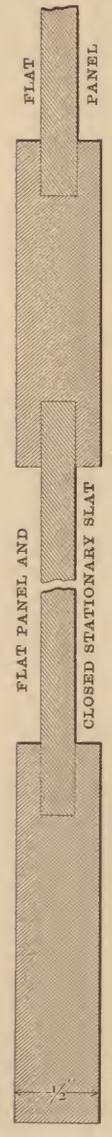
Fig. 19.

Showing the appearance of a section of Blind in this grade, entirely filled with **Flat Panels** (F. P.); illustrating, among others, the appearance of each section shown in set No. 957, Arrangement of Panels and Slats.



Fig. 21.

Showing the appearance of a section of Blind in this grade, the two outside divisions filled with **Flat Panels** (F. P.) and the two inside divisions with **Closed Stationary Slats** (C. S. S.); illustrating, among others, the appearance of each section shown in set No. 960, Arrangement of Panels and Slats.



Cross-Section No. 57.

This is a full-size section through all the sections of Blinds shown on this page, Figs. 19, 20 and 21.



Fig. 20.

Showing the appearance of a section of Blind in this grade, entirely filled with **Closed Stationary Slats** (C. S. S.), illustrating, among others, the appearance of each section shown in set No. 958, Arrangement of Panels and Slats.

Printed Order Blanks, covering all kinds and grades of Sliding Blinds that we make, will be furnished upon application to all persons desiring to favor us with their orders.

2 Div. 12-20 inches wide.



930 4-F. P.

931 2-F. P. 2-C.S.S.

932 4-C.S.S.

3 Div. 18-30 inches wide



933 6 Div. F. P.

934 3 Div. F. P. 3 Div. C. S. S.

935 4 Div. F. P. 2 Div. C. S. S.

936 6 Div. C. S. S.

4 Div. 24-40 inches wide.



937 8 Div. F. P.

938 4 Div. F. P. 4 Div. C. S. S.

939 4 Div. F. P. 4 Div. C. S. S.

940 8 Div. C. S. S.

4 Div. 24-40 inches wide.

5 Div. 30-50 inches. wide



941 10 Div. F. P.

942 5 Div. F. P. 5 Div. C. S. S.

943 4 Div. F. P. 6 Div. C. S. S.

944 10 Div. C. S. S.



945 12 Div. F. P.

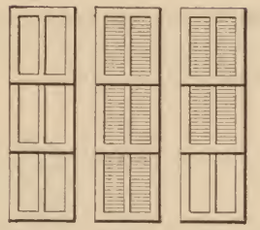
946 6 Div. F. P. 6 Div. C. S. S.

947 4 Div. F. P. 8 Div. C. S. S.

948 12 Div. C. S. S.

6 Div. 36-60 inches wide.

2 Div. 12-20 inches wide.

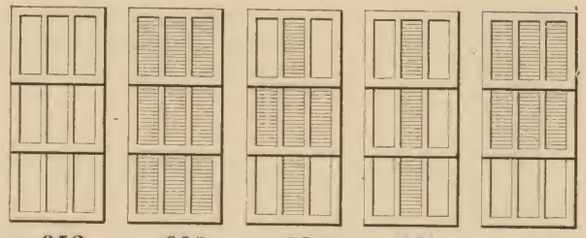


949 6-F. P.

950 6-C.S.S.

951 2-F. P. 4-C.S.S.

3 Div. 18-30 inches wide.



952 9 Div. F. P.

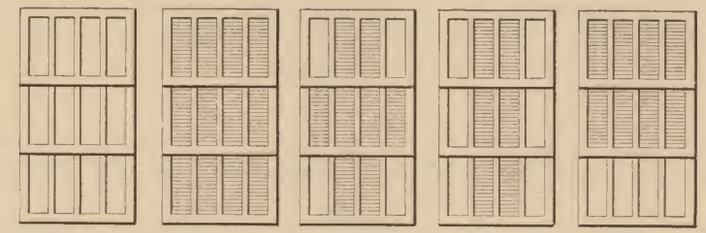
953 Div. C.S.S.

954 4 Div. F. P. 5 Div.C.S.S.

955 6 Div. F. P. 3 Div. C.S.S.

956 3 Div. F. P. 6 Div. C.S.S.

4 Div. 24-40 inches wide.



957 12 Div. F. P.

958 12 Div. C. S. S.

959 4 Div. F. P. 8 Div. C. S. S.

960 6 Div. F. P. 6 Div. C. S. S.

961 4 Div. F. P. 8 Div. C. S. S.

4 Div. 24-40 inches wide.

5 Div. 30-50 inches wide.

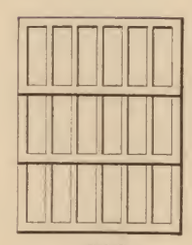


962 15 Div. F. P.

963 15 Div. C. S. S.

964 6 Div. F. P. 9 Div. C. S. S.

965 5 Div. F. P. 10 Div. C. S. S.



966 18 Div. F. P.

967 18 Div. C. S. S.

968 6 Div. F. P. 12 Div. C. S. S.

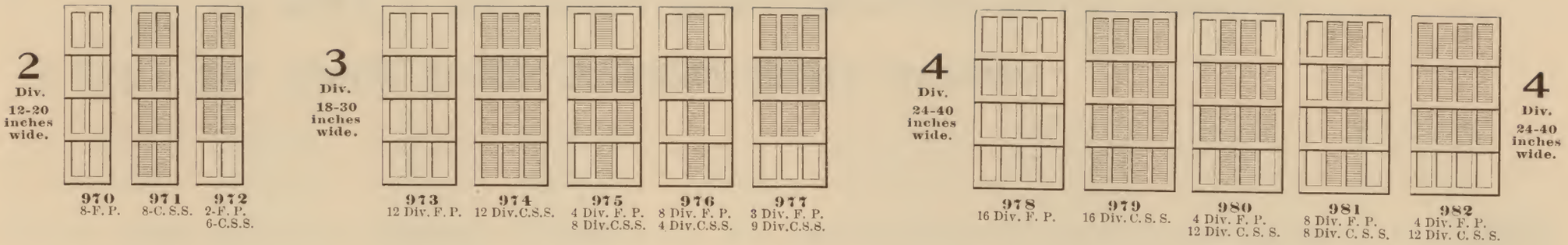
969 6 Div. F. P. 12 Div. C. S. S.

6 Div. 36-60 inches wide.

ARRANGEMENT OF PANELS AND SLATS FOR CLASSES OF BLINDS TWO AND THREE SECTIONS IN HEIGHT.

Willer's Common (spring-balanced) Sliding Blinds No. 5.

Blank spaces have **Flat Panels** (F. P.); narrow cross-lines, **Closed Stationary Slats** (C. S. S.



ARRANGEMENT OF PANELS AND SLATS FOR CLASSES OF BLINDS FOUR SECTIONS IN HEIGHT.

Willer's Common (spring-balanced) Sliding Blinds No. 5.

Blank spaces have **Flat Panels** (F. P.); narrow cross-lines, **Closed Stationary Slats** (C. S. S.)

Grades Nos. 4 and 5 are Sliding Blinds ½ inch thick only, and have square-stuck stiles, rails and mullions. They will be furnished spring-balanced only, and have no other hardware on them than either the Round Lifting Plate No. 5, or the Oblong Lifting Plate No. 8, shown elsewhere.

Grade No. 4 has one section only, either partly or wholly, filled with Regular Rolling Slats, with wooden rod to operate slats with; the other sections have either Flat Panels or Closed Slats, or a combination of both.

Grade No. 5 has no Rolling Slats whatever. All sections are filled with Flat Panels or Closed Slats, or a combination of both.

No other combinations in either Grade will be furnished than those shown by cuts.

GUIDE-WAYS (SLIDE-STRIPS OR RUN-WAYS) FOR

Standard (spring-balanced) Sliding Blinds, Nos. 1, 2 and 3;

Common (spring-balanced) Sliding Blinds, Nos. 4 and 5.

ON the following pages we print full-size illustrations of a large variety and assortment of Guide-ways used with above Blinds. These Guide-ways we furnish and they are included in the price of Blinds. A set of Guide-ways always consists of two side-pieces, a deep-grooved right-hand piece and a shallow-grooved left-hand piece, and sometimes of a head-piece not provided with any grooves. This latter piece is furnished in all cases where the blinds do not run into an upper pocket. The depth of the grooves in the right-hand piece is indicated by the dotted lines in each illustration. These Guide-ways we furnish "finished," and they must not be touched and meddled with by the painters in the house under any circumstances. They should be made of a wood and finish to suit the trim or casings of the windows. In all cases where a head-piece is furnished, this head-piece should be mitred with the side-pieces at the top of window to make an even finish all around. The Guide-ways can be ordered ahead of the Blinds and can be secured and fitted to the windows, so that the carpenters can "finish up" the windows with casings, trim, panelling, etc., before the Blinds are ready. These can at any time afterwards be easily fitted and put in; they are practically not required until nearly everything else about the house is ready and finished.

Regular Guide-ways, Page 97. — We term these Regular Guide-ways for the reason that they are more used than others and are adaptable to most of the different Classes of Blinds, especially those not provided with any pockets, and those where blinds run down to floor, without pockets. The proper use of these Guide-ways is illustrated by the majority of the Details of Window-Frames published herein.

Guide-ways with Widened Front Edges, Page 98. — These Guide-ways are especially adapted for Classes of Blinds requiring pockets, where such pockets are constructed by the use of Brackets, as shown in Plan C, Willer's Systems of Removable Panels. The perpendicular dotted lines in each illustration indicate how much of the front edge of the Guide-ways is to be cut away where such Guide-ways reach into the pockets. Their proper use is fully illustrated in Details of Window-Frames, Nos. 334, 336, 338, 340 and 341, and in full-size Detail No. 50.

Guide-ways with Extra Wide Front Edges, Page 99. — These are especially designed for use in Classes of Blinds requiring a lower pocket, and which pocket is to be covered by our Hinged Window Stool. The front edge is made extra wide to provide sufficient room for the fitting of the panelling between the face surfaces of the Guide-ways, affording easy means for the removal of the panelling at any time. The proper use of these Guide-ways is further illustrated by Plan D, Willer's System of

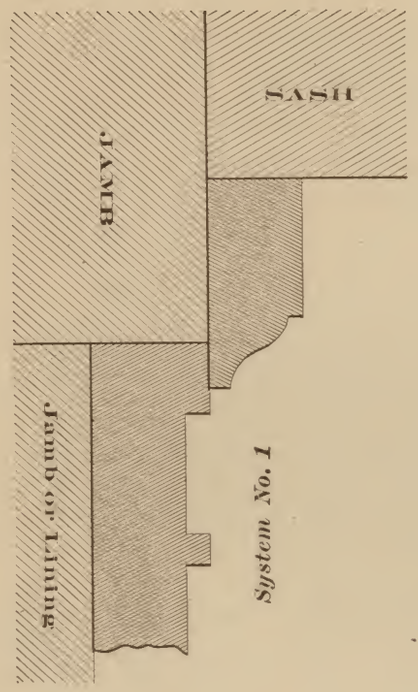
Removable Panels, by full-size Detail No. 51, and by Details of Window-Frames, Nos. 231, 233, 235, 335, 337, 339, 342, 343, 344, 345, 412, 413, 414 and 415. In Plan D and Detail No. 345, we show this application for upper pockets only, as in Class C; in Detail No. 342, for both upper and lower pockets, as in Class A; and in all other Details, for lower pockets only, as in Classes H and J.

Combination Window-stops, Guide-ways and Screen Slide-strips, Pages 100 and 101. — As indicated by this title, these serve the triple purpose of a Guide-way for the blinds, Stop for the sash, and Slide-strip for an Inside Sliding Screen, where such a screen is desired. This triple combination is used only in cases where an inside sliding screen is desired in connection with the blinds, and where the Guide-way must necessarily be applied to the window according to System of Application No. 5, as shown in Details of Window-Frames, Nos. 203, 204, 205, 302, 303, 305, 308, 309 and 311. Where such Guide-ways are applied according to System of Application No. 1, we furnish independently from the Blind Guide-way used, a Combination Window-stop and Screen Slide-strip, as shown in Details of Window-Frames, Nos. 312 and 317.

Guide-ways with Square Edges, Page 101. — This is a very convenient form of Guide-way and is adaptable to all Classes of Blinds, except such as require a lower pocket. The front edge of the Guide-way is nearly entirely covered by the casings or trim of the window. The use of this form of Guide-way requires special preparation therefor in the making of the window-frame and finish and its application to the window, before such window is trimmed or finished. These Guide-ways will be made of the exact width required. Where the widths differ from those shown in the illustrations, the exact width required must be mentioned in order, and the order must also state whether the additional width, if such is the case, is to be added to the front or rear edge of the Guide-way. The application of these Guide-ways to the window is further illustrated by the following Details of Window-Frames: Nos. 218 to 229, Nos. 322 to 333 and Nos. 405 to 407.

Guide-ways for Common Sliding Blinds, Nos. 4 and 5, Page 102. — It is presumed that these grades of blinds are used only in common windows or frames made in the usual manner, and in Classes of Blinds not requiring any pockets or special preparation. We therefore publish only a limited number of designs for these, and in our Details of Window-Frames, Nos. 1 to 18, we show their application to the window according to System of Application No. 5 only.

All the above Guide-ways can be changed and modified to suit actual requirements, except as to the width and depth of the grooves. The width of the grooves must always be provided for as shown, viz.: 1/16 of an inch for Grades Nos. 1, 2 and 3, and 17/32 of an inch for Grades Nos. 4 and 5. The width of the spaces between the grooves can in any case, where it is desired, and where the space in the window-jamb permits the use of a wider Guide-way, be made wider than shown; the spaces provided for in our sections are however sufficient.



System of Application No. 1.
Patented Feb. 10th, 1885.

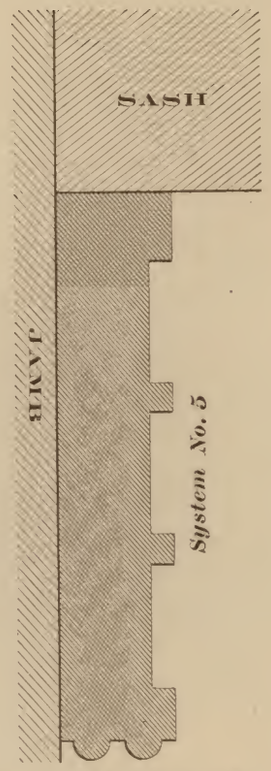
WILLER'S SYSTEMS OF APPLICATION
OF BLIND GUIDE-WAYS TO WINDOW-FRAMES.

There are two distinctly different systems and we must with each order know which one has been adopted.

System No. 1 should preferably be adopted in all cases where our Blinds are intended to be used. It costs no more to have your window-frames and trim made to apply this system than to have them made in any other way. By the use of this system, the Guide-ways remain permanently in place, and the sash can at any time be removed from the window for repairs and for other purposes by simply removing the window-stops.

This system is original with us and fully covered by letters patent and can be used only in connection with Blinds furnished by us.

System No. 5 should be used only in cases where frames are already made and where the Guide-ways can not be applied in any other way. The Guide-ways in this system serve the double purpose of window-stop and Blind Guide-way.



System of Application No. 5.

DIRECTIONS FOR FITTING
ANY OF OUR BLINDS

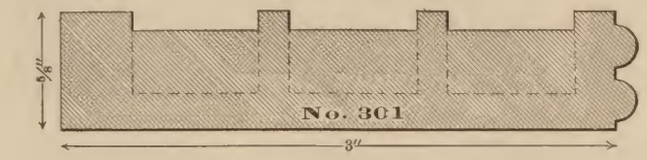
Are packed with each shipment of Blinds.

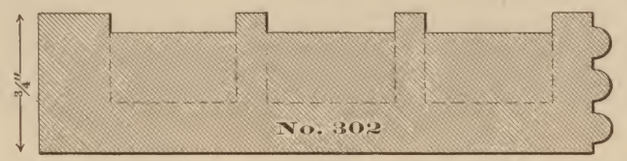
PRINTED ORDER BLANKS

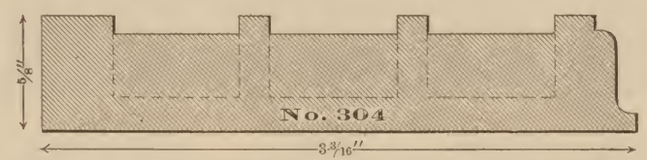
Specially designed for the purpose and printed in copying ink, will be furnished upon request to all parties intending to order any of our Blinds or Screens.

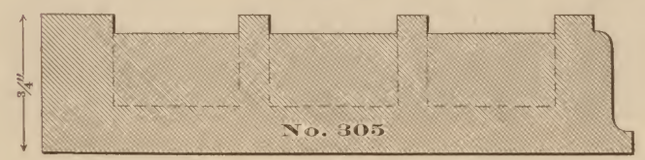
DIRECTIONS FOR ORDERING
ANY OF OUR BLINDS

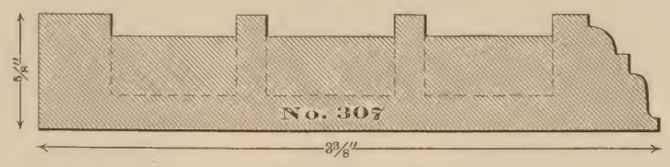
Are printed on the back side of Order Blanks.

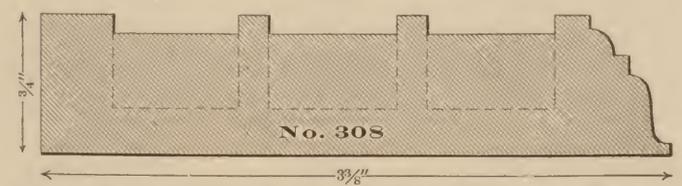


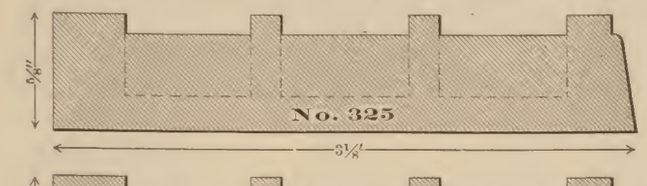


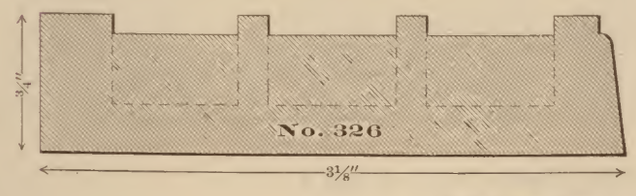


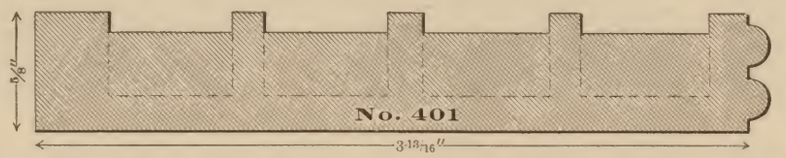


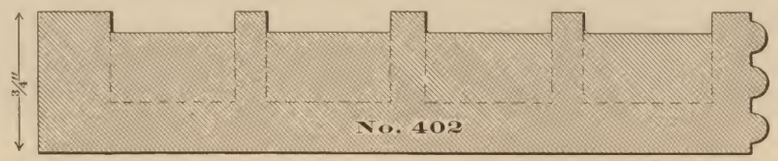


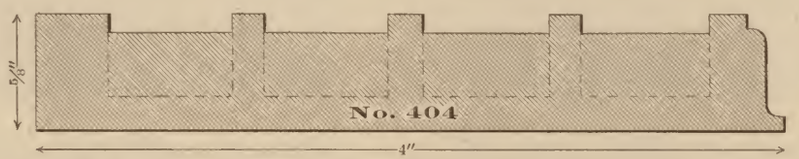


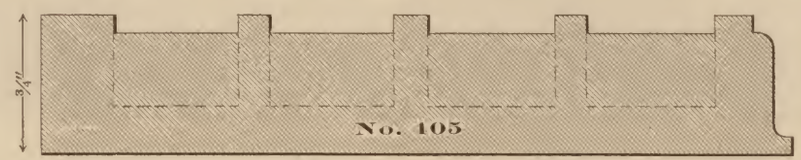


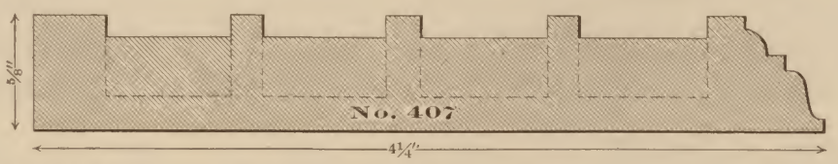


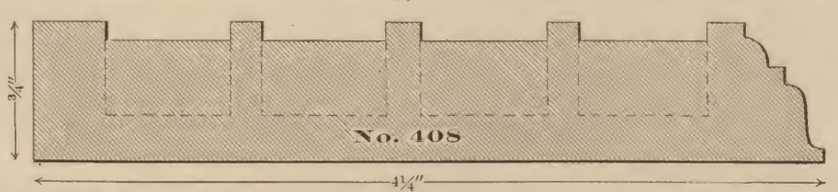


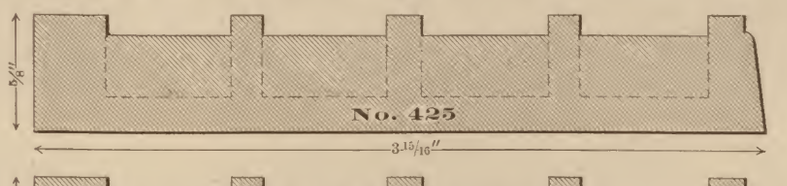


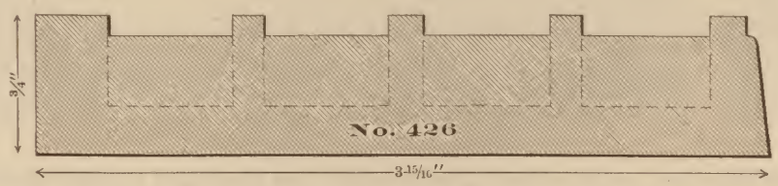


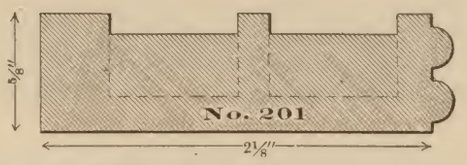


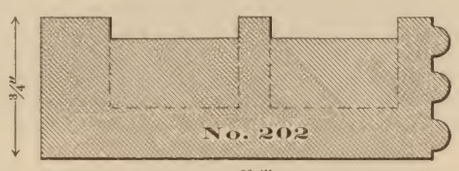


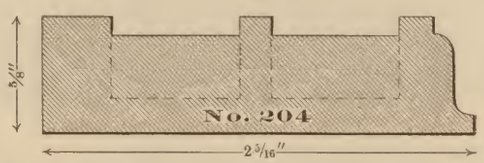


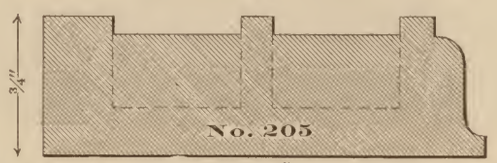


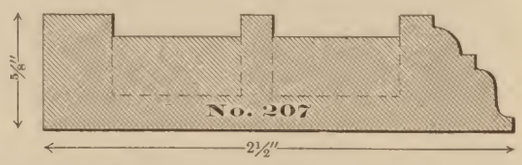


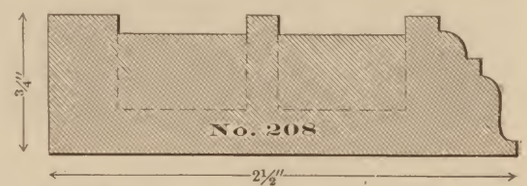


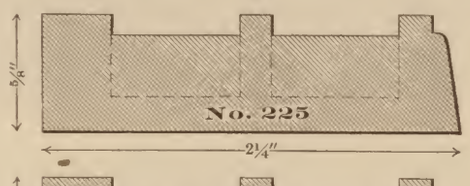


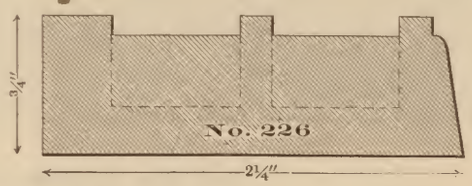










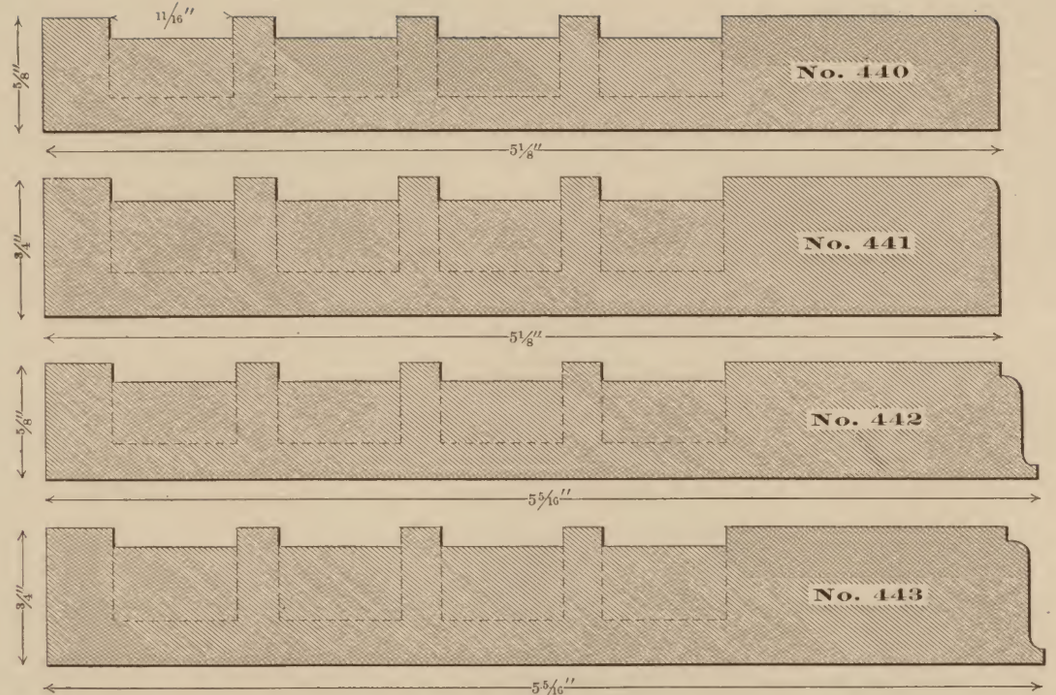


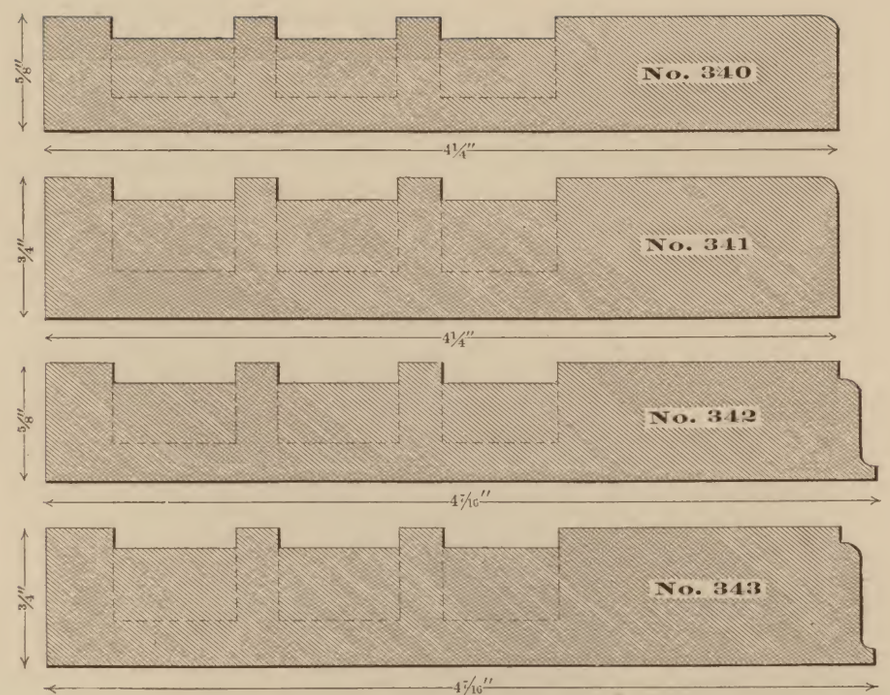
Full-Size Sections of Regular Guide-ways for Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3.

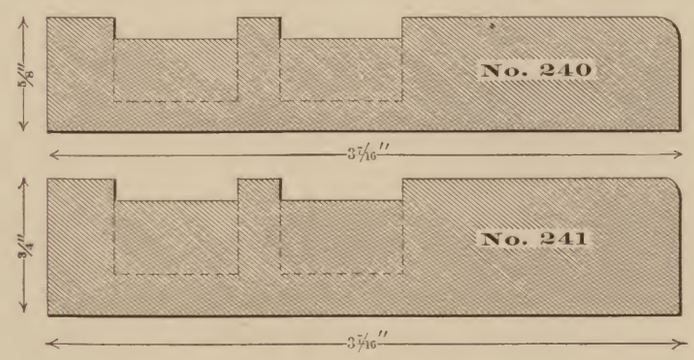


Full-Size Sections of Blind Guide-ways, with widened front edges, for Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3.

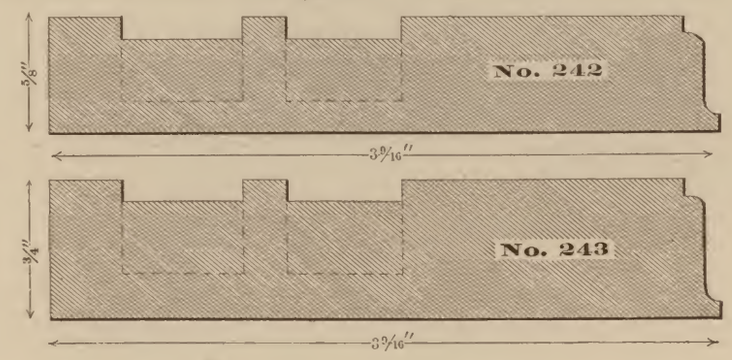
Especially adapted for Classes of Blinds requiring lower pockets constructed according to Fig. 1, Plan C, page 150, Plan C, page 156 and Full-Size Detail No. 50, page 153.





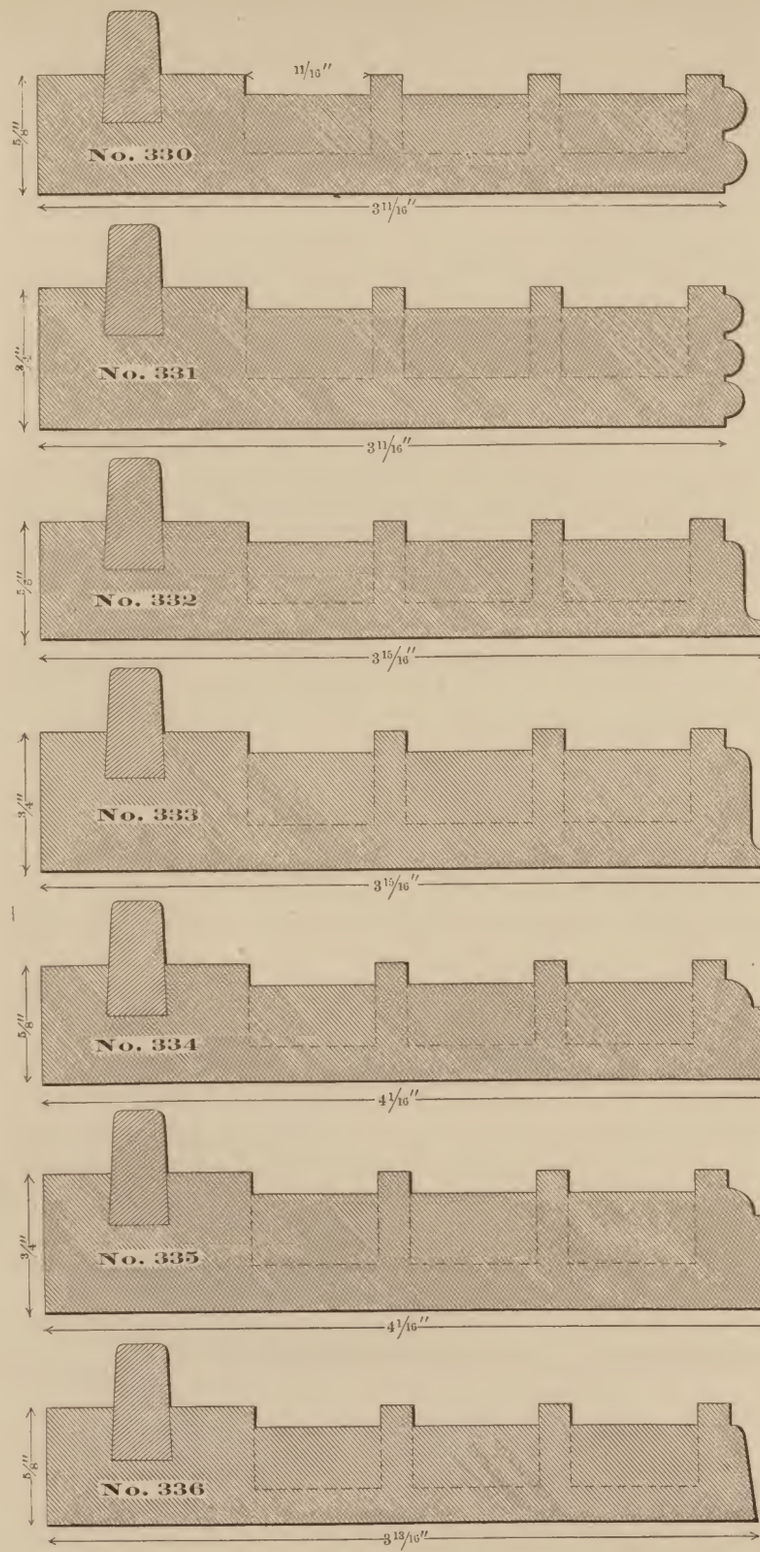


All Guide-ways, of whatever kind, have **shallow** grooves in the **left-hand** side-pieces, and **deep** grooves (indicated by dotted lines in cuts) in the **right-hand** side-pieces.



Full-Size Sections of Blind Guide-ways, with extra wide front edges, for Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3.

Especially adapted for Classes of Blinds requiring lower pockets constructed according to Fig. 2, Plan D, page 150, Plan D, page 157, and Full Size Detail No. 51, pages 154 and 155.



Full-Size Sections of Combination Window-Stops, Blind Guide-ways and Screen Slide-Strips for Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3.



Nos. 230 to 236.

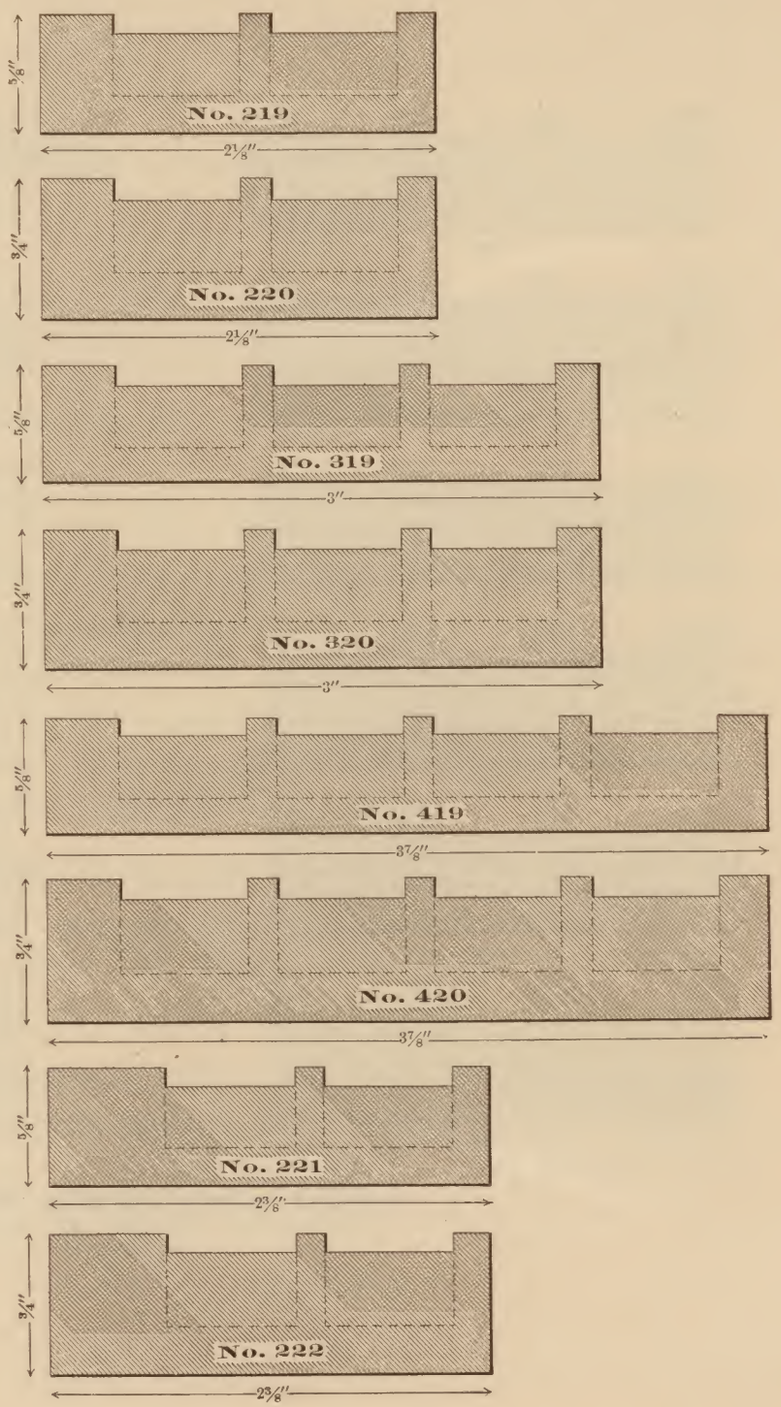
Full-Size Sections of Combination Window-Stops, Blind Guide-ways and Screen Slide-Strips for Standard (spring-balanced) Sliding Blinds, Nos. 1, 2 and 3.

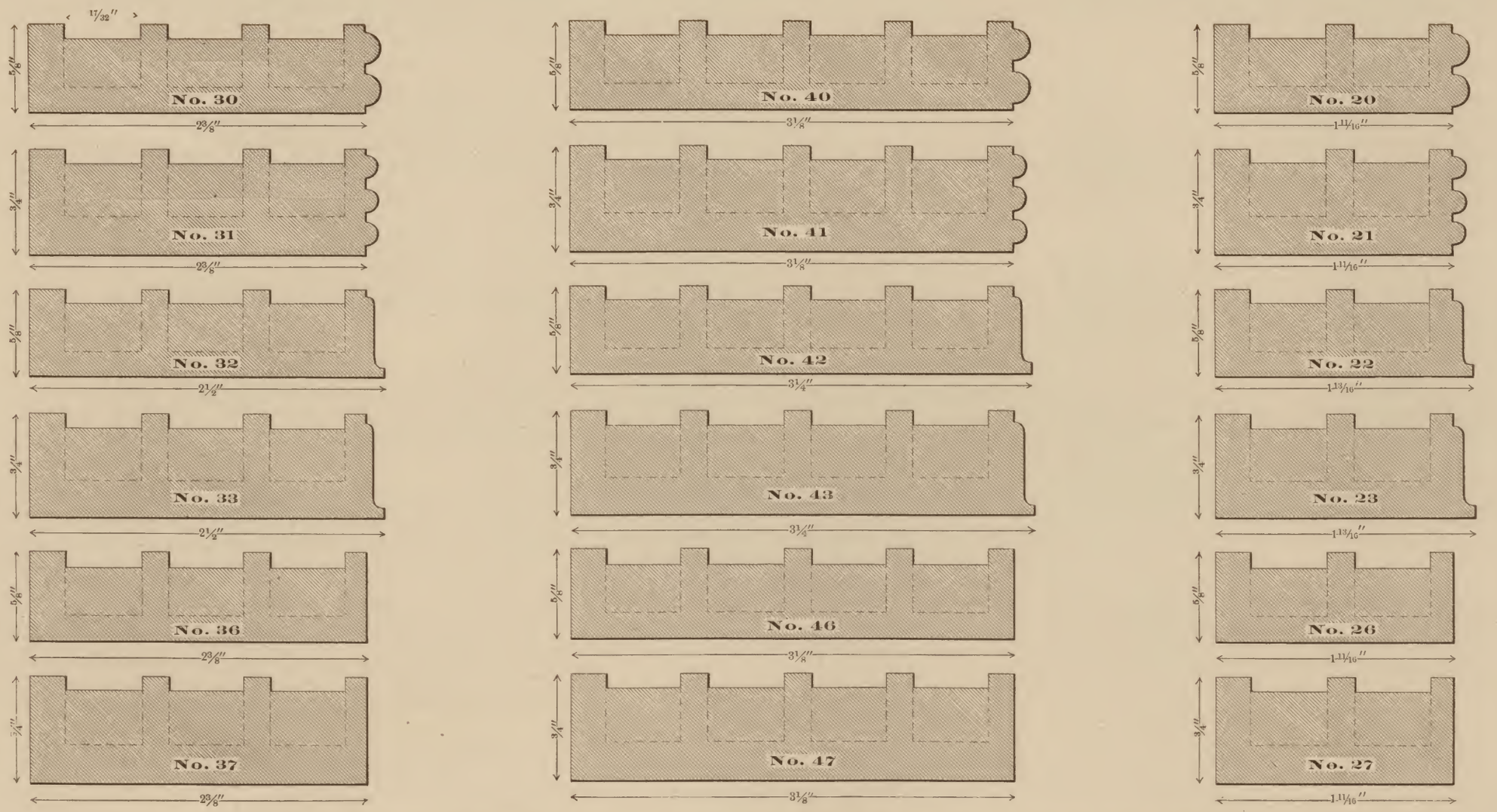
Nos. 219 to 222, 319, 320, 419 and 420.

Full-Size Sections of Blind Guide-ways with square edges, for Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3.

These latter Guide-ways will be furnished of the exact width required. When ordering, state No. and the exact width, and if wider than shown in cut, state whether the extra width is to be added to front or rear edge. For instance, No. 420, 4½ in. wide, add 5/8 in. to rear edge, or add 3/8 in. to rear and 1/4 in. to front edge.

The rear edge of Guide-ways is the one to the left of all the guide-way sections printed herein.





Full-Size Sections of Regular Guide-ways for Common (spring-balanced) Sliding Blinds Nos. 4 and 5.

These Blinds are only one-half inch thick, and the Grooves in Guide-ways one-sixteenth inch wider.

SECTIONS OF WINDOW FRAMES.

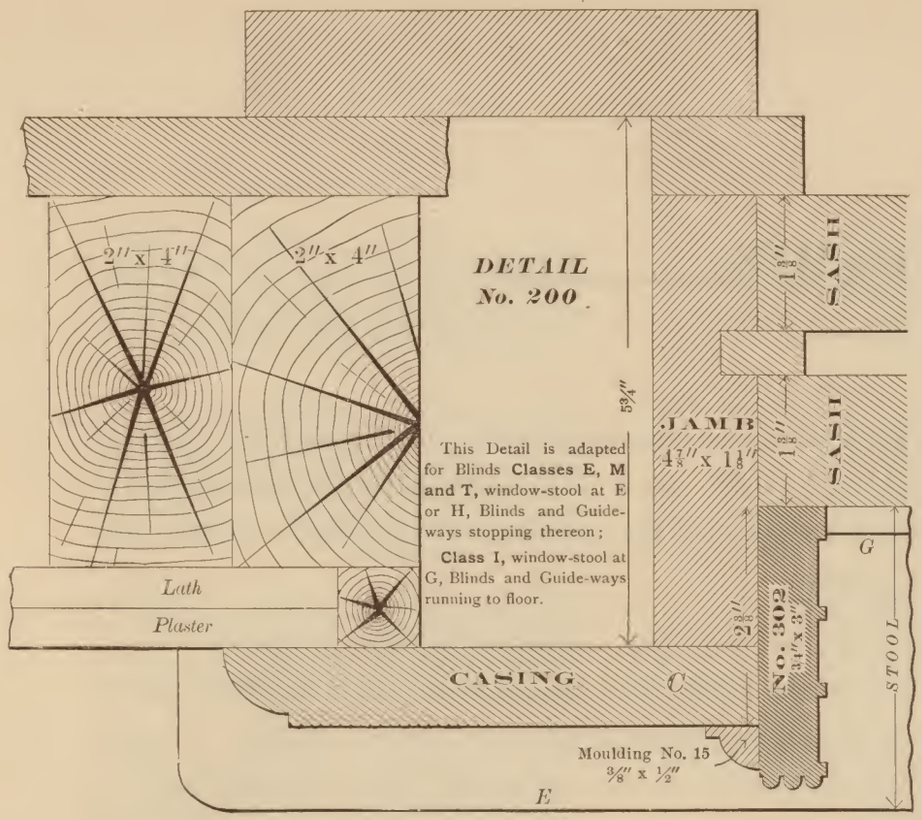
THE SECTIONS printed on the following pages have been prepared principally for the purpose of their serving as a guide to architects and builders in arranging their own details. We print a considerably larger variety than necessary, simply to show that our Sliding Blinds can be made to work in a window frame of almost any construction, and conform to conditions as they may exist. It is, however, in the architect's and his client's interest to make these conditions as favorable as possible for the adoption of our Blinds, by selecting the Kind, Grade and Class best suited to the circumstances, in advance, and arranging the construction of the window-frames accordingly. This is especially necessary where it is desired that Blinds go into pockets.

Even though it is not a pre-arranged affair, that our Blinds are to be used in a certain building, it is a good plan for an architect to arrange his window-frames and finish in such a manner, that at any time afterwards our Guide-ways can be applied to the window-jamb independently from the window-stops, according to our system of application No. 1. If an architect provides for such special construction in his specifications, and accompanies his set of plans by the proper detail of window-frames, the cost of such construction is not increased to any noticeable extent, nor is such construction detrimental to the appearance or usefulness of the window, in case no blinds are ever used therein afterwards.

In looking over the details published herewith, it will be noticed that the best general results from the use of our Sliding Blinds can be obtained by putting sufficiently thick walls into the building. For this reason it is not advisable to use any smaller than 2x6 studding in a frame building, and even where such are used, a number of the Classes of Blinds, especially those having four sections running in four separate grooves, require a "boxing out" of the casings.

A careful study of the details will fully reveal the advantages and disadvantages of each, and a further detailed description of them is therefore unnecessary. All of them can be changed and modified in sizes, etc., to suit the conditions as they may exist.

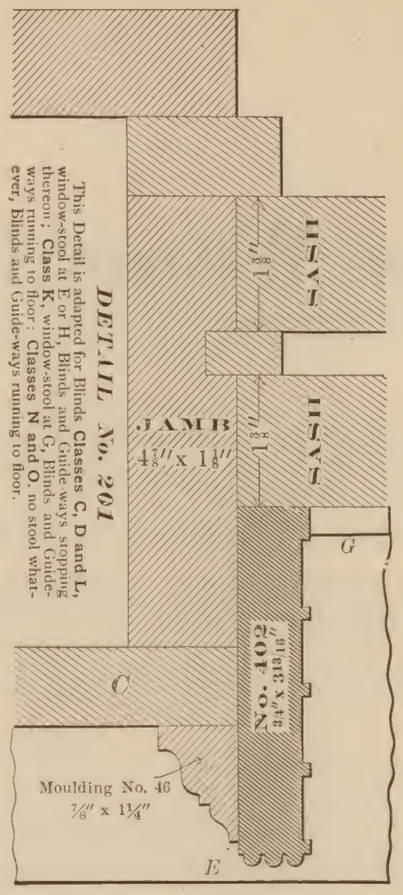
All those parts shaded dark in the sections, principally the Guide-ways, are a part of the Blinds, and are furnished by us in connection with the Blinds. All the light shaded parts must be provided for by the architect and the carpenter contractor.



DETAIL No. 200.

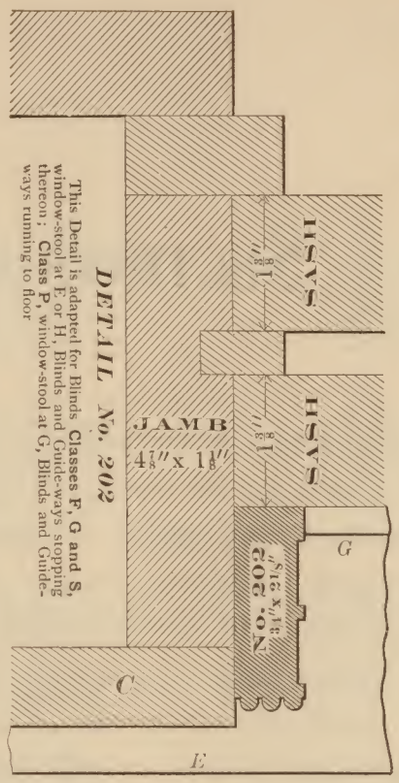
This Detail is adapted for Blinds **Classes E, M and T,** window-stool at E or H, Blinds and Guide-ways stopping thereon;

Class I, window-stool at G, Blinds and Guide-ways running to floor.



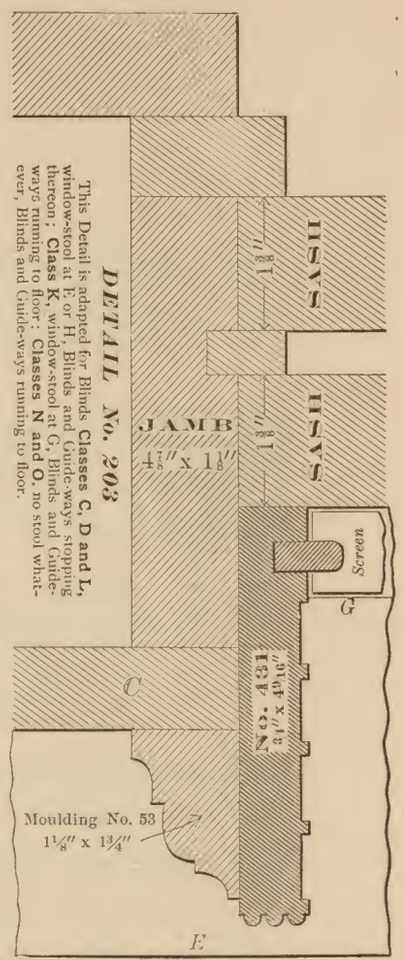
DETAIL No. 201

This Detail is adapted for Blinds **Classes C, D and L,** window-stool at E or H, Blinds and Guide-ways stopping thereon; **Class K,** window-stool at G, Blinds and Guide-ways running to floor: **Classes N and O.** no stool whatever, Blinds and Guide-ways running to floor.



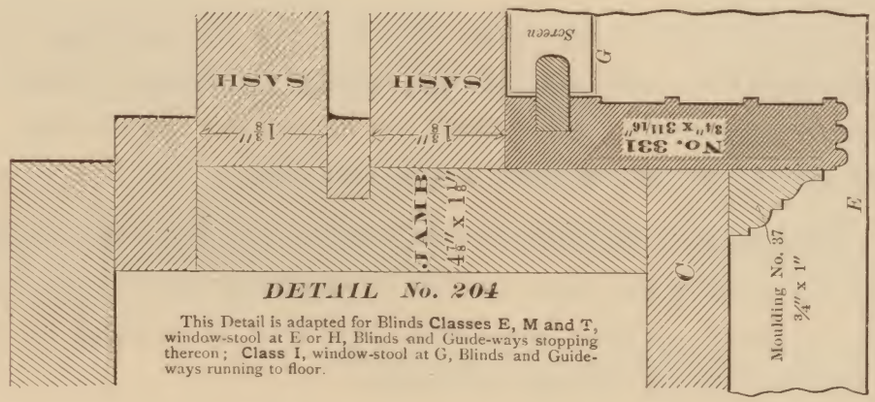
DETAIL No. 202

This Detail is adapted for Blinds **Classes F, G and S,** window-stool at E or H, Blinds and Guide-ways stopping thereon: **Class P,** window-stool at G, Blinds and Guide-ways running to floor



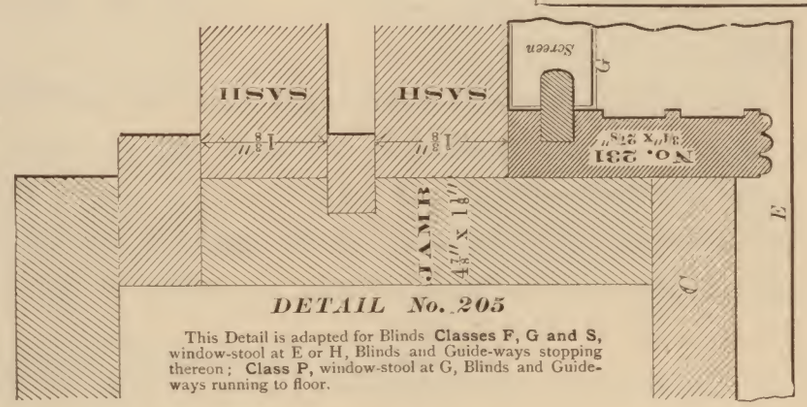
DETAIL No. 203

This Detail is adapted for Blinds **Classes C, D and L,** window-stool at E or H, Blinds and Guide-ways stopping thereon; **Class K,** window-stool at G, Blinds and Guide-ways running to floor: **Classes N and O.** no stool whatever, Blinds and Guide-ways running to floor.



DETAIL No. 204

This Detail is adapted for Blinds **Classes E, M and T,** window-stool at E or H, Blinds and Guide-ways stopping thereon; **Class I,** window-stool at G, Blinds and Guide-ways running to floor.

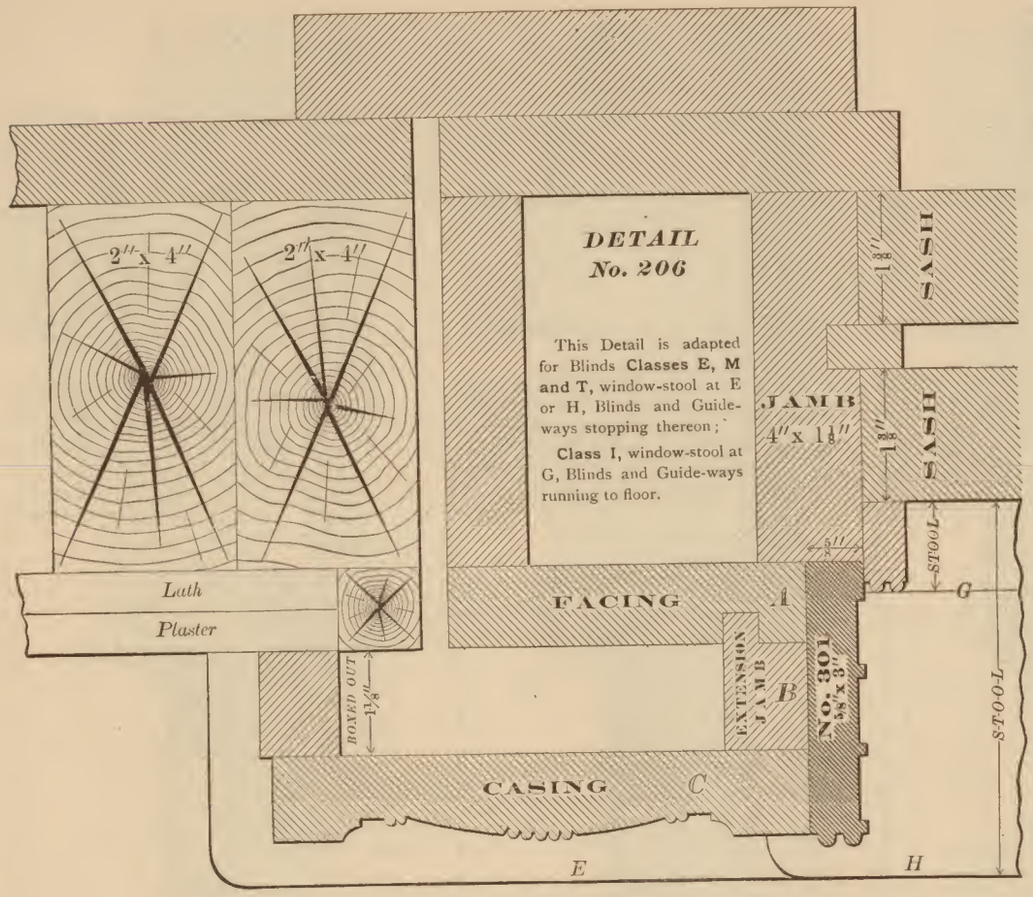


DETAIL No. 205

This Detail is adapted for Blinds **Classes F, G and S,** window-stool at E or H, Blinds and Guide-ways stopping thereon; **Class P,** window-stool at G, Blinds and Guide-ways running to floor.

Half-Size Details of Window-Frames for Willer's Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3.

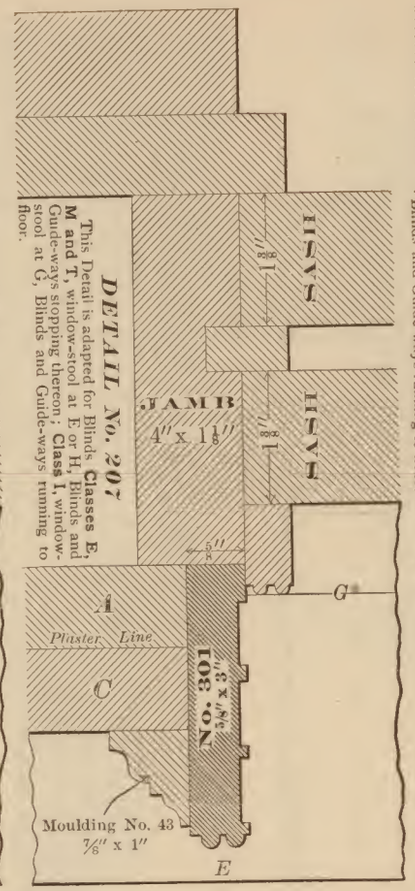
For Frame Buildings with 2 x 4 studding.



DETAIL No. 206

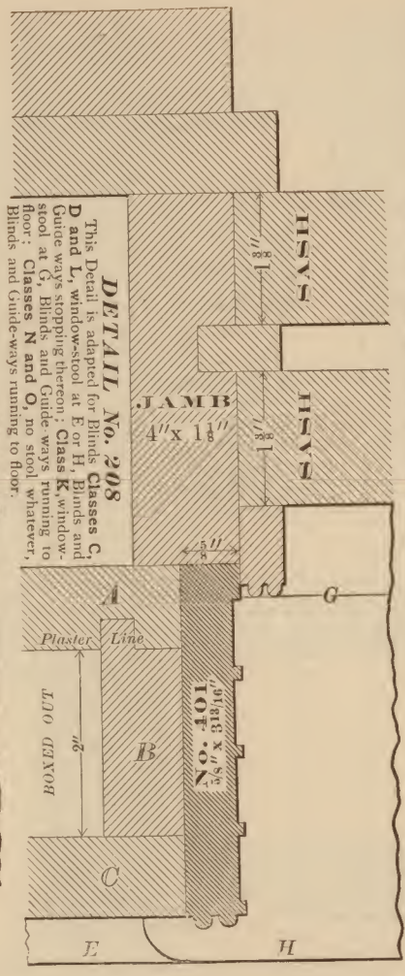
This Detail is adapted for Blinds **Classes E, M and T,** window-stool at E or H, Blinds and Guide-ways stopping thereon;

Class I, window-stool at G, Blinds and Guide-ways running to floor.



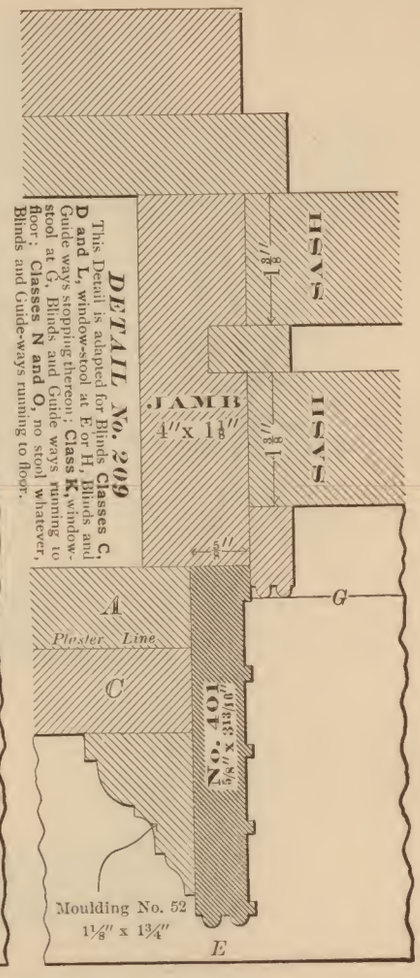
DETAIL No. 207

This Detail is adapted for Blinds **Classes E, M and T,** window-stool at E or H, Blinds and Guide-ways stopping thereon; **Class I,** window-stool at G, Blinds and Guide-ways running to floor.



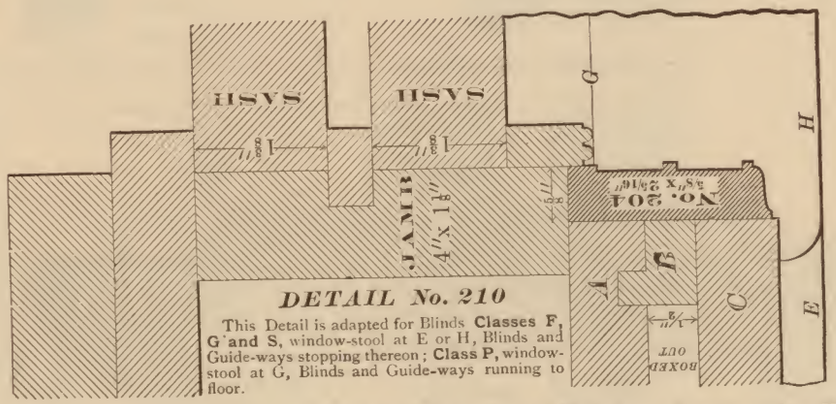
DETAIL No. 208

This Detail is adapted for Blinds **Classes C, D and L,** window-stool at E or H, Blinds and Guide-ways stopping thereon; **Class K,** window-stool at G, Blinds and Guide-ways running to floor; **Classes N and O,** no stool whatever, Blinds and Guide-ways running to floor.



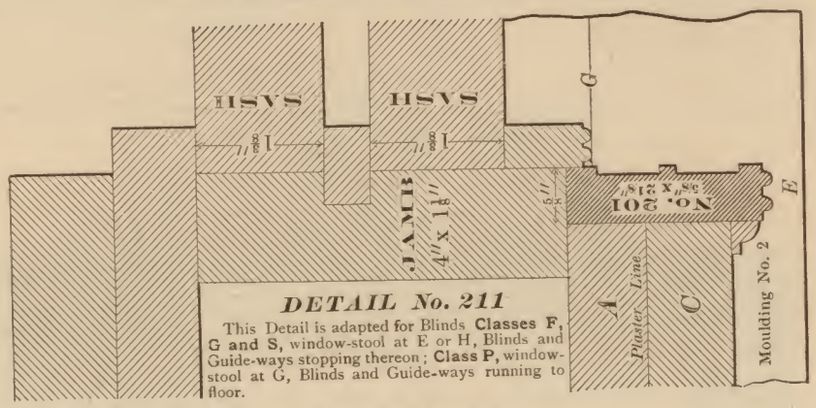
DETAIL No. 209

This Detail is adapted for Blinds **Classes C, D and L,** window-stool at E or H, Blinds and Guide-ways stopping thereon; **Class K,** window-stool at G, Blinds and Guide ways running to floor; **Classes N and O,** no stool whatever, Blinds and Guide-ways running to floor.



DETAIL No. 210

This Detail is adapted for Blinds **Classes F, G and S,** window-stool at E or H, Blinds and Guide-ways stopping thereon; **Class P,** window-stool at G, Blinds and Guide-ways running to floor.

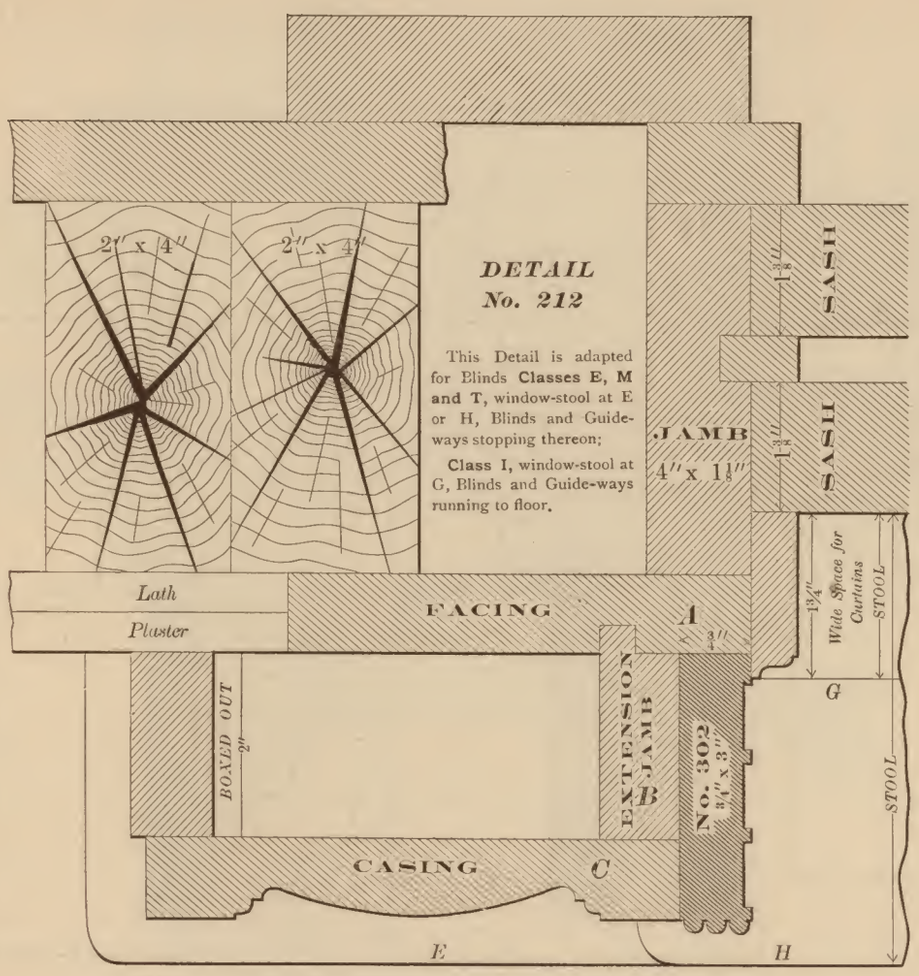


DETAIL No. 211

This Detail is adapted for Blinds **Classes F, G and S,** window-stool at E or H, Blinds and Guide-ways stopping thereon; **Class P,** window-stool at G, Blinds and Guide-ways running to floor.

Half-Size Details of Window-Frames for Willer's Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3.

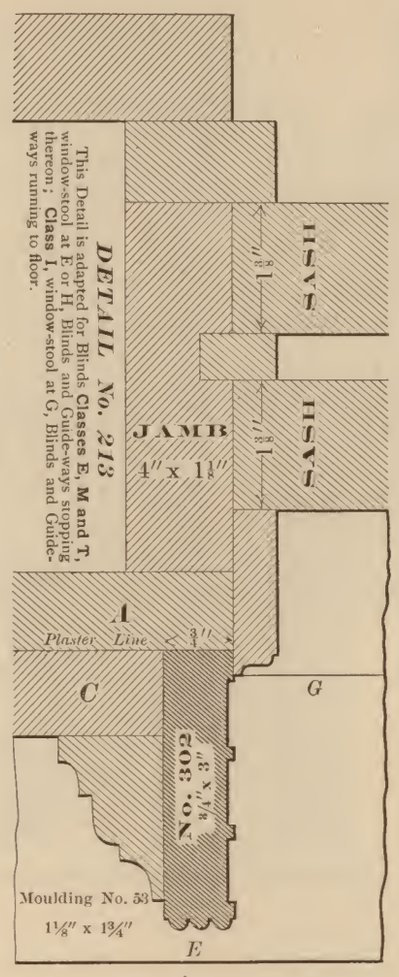
For Frame Buildings with 2 x 4 studding.



DETAIL No. 212

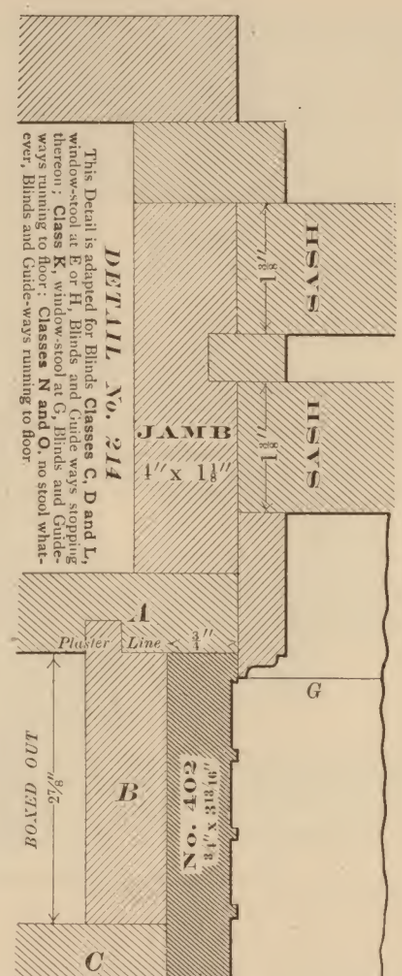
This Detail is adapted for Blinds **Classes E, M and T,** window-stool at E or H, Blinds and Guide-ways stopping thereon;

Class I, window-stool at G, Blinds and Guide-ways running to floor.



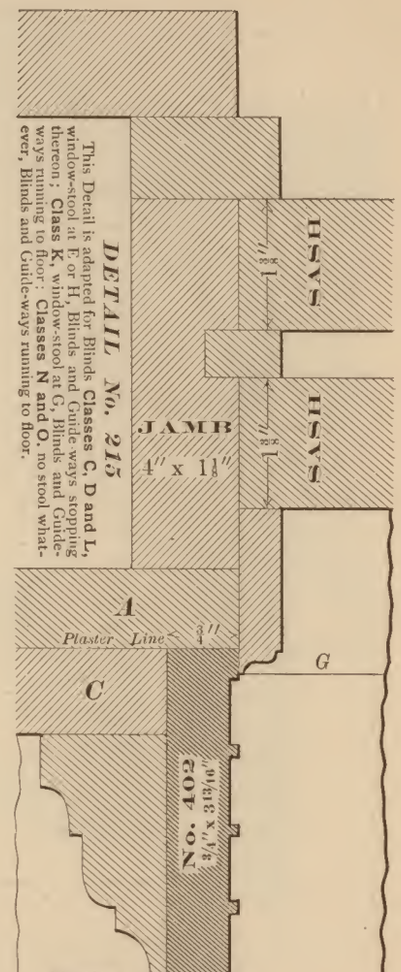
DETAIL No. 213

This Detail is adapted for Blinds **Classes E, M and T,** window-stool at E or H, Blinds and Guide-ways stopping thereon; **Class I,** window-stool at G, Blinds and Guide-ways running to floor.



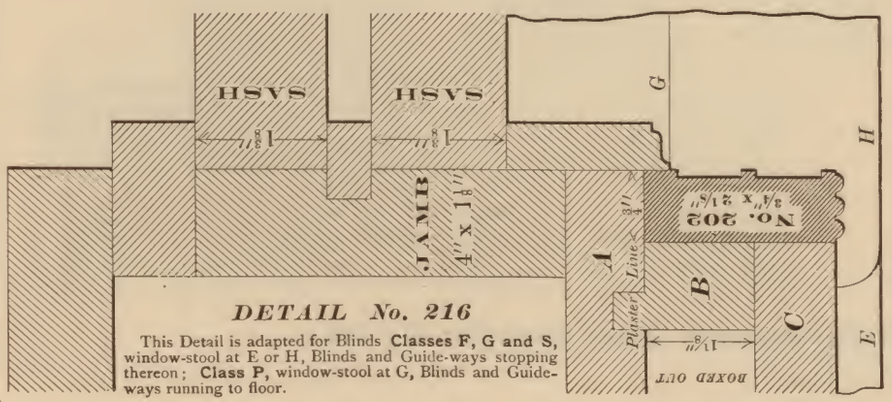
DETAIL No. 214

This Detail is adapted for Blinds **Classes C, D and L,** window-stool at E or H, Blinds and Guide-ways stopping thereon; **Class K,** window-stool at G, Blinds and Guide-ways running to floor: **Classes N and O,** no stool whatever, Blinds and Guide-ways running to floor



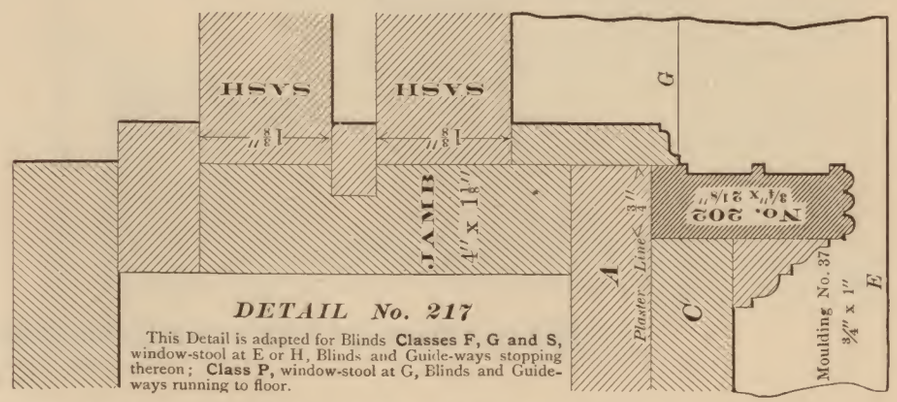
DETAIL No. 215

This Detail is adapted for Blinds **Classes C, D and L,** window-stool at E or H, Blinds and Guide-ways stopping thereon; **Class K,** window-stool at G, Blinds and Guide-ways running to floor: **Classes N and O,** no stool whatever, Blinds and Guide-ways running to floor.



DETAIL No. 216

This Detail is adapted for Blinds **Classes F, G and S,** window-stool at E or H, Blinds and Guide-ways stopping thereon; **Class P,** window-stool at G, Blinds and Guide-ways running to floor.

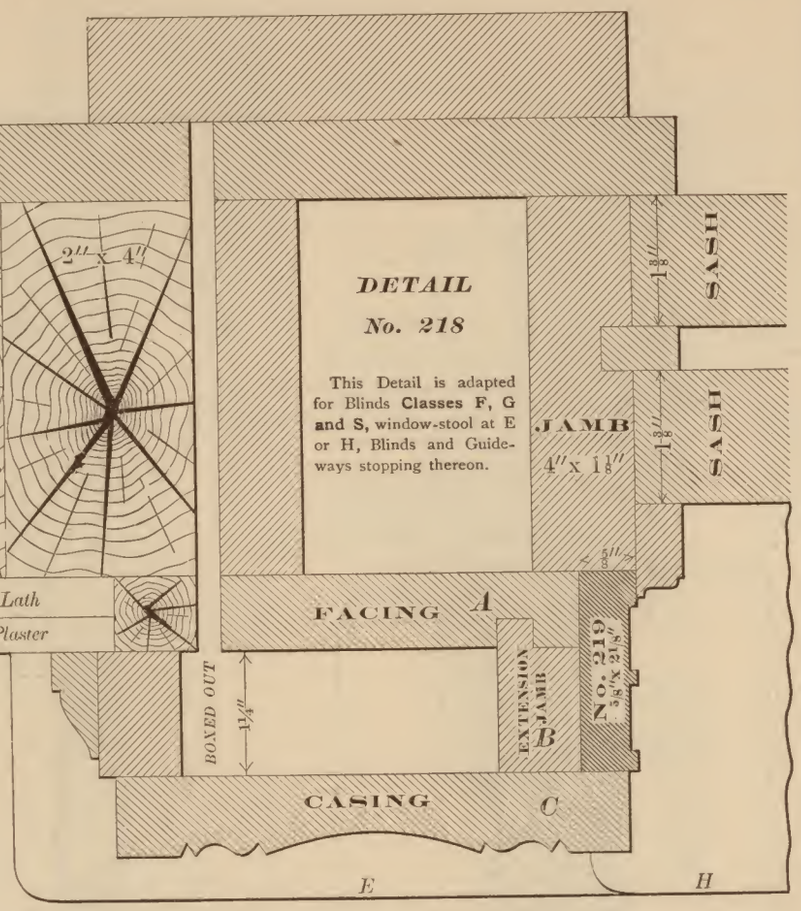


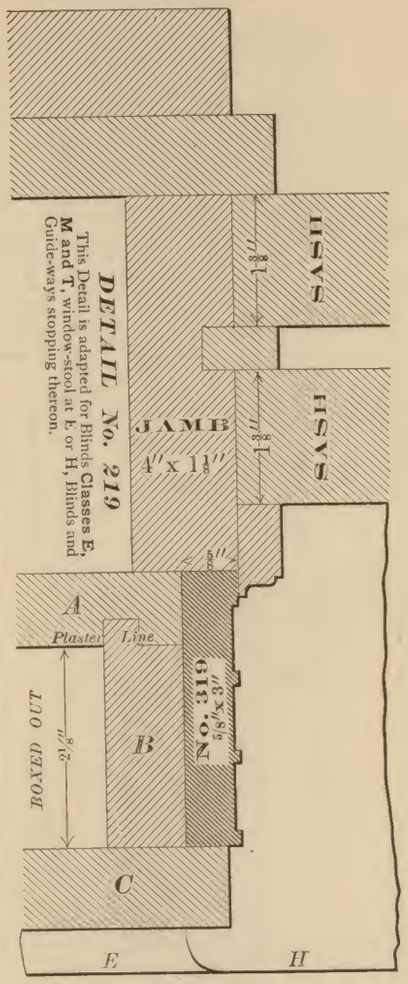
DETAIL No. 217

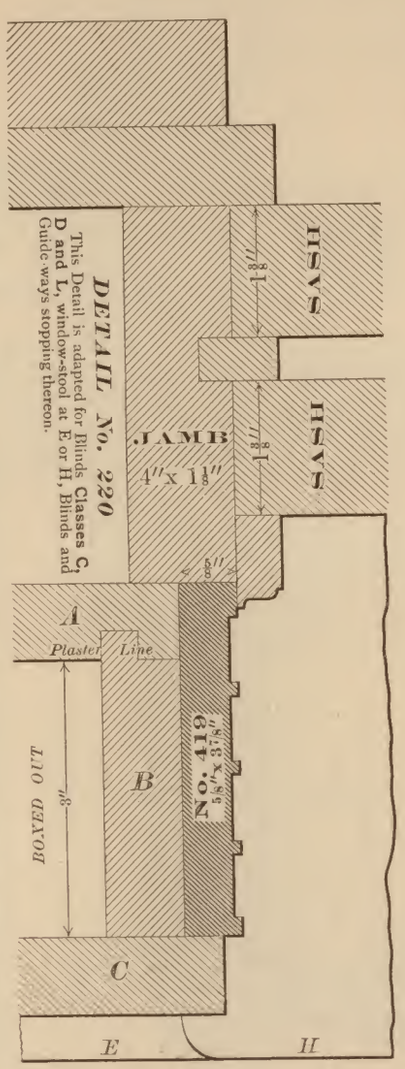
This Detail is adapted for Blinds **Classes F, G and S,** window-stool at E or H, Blinds and Guide-ways stopping thereon; **Class P,** window-stool at G, Blinds and Guide-ways running to floor.

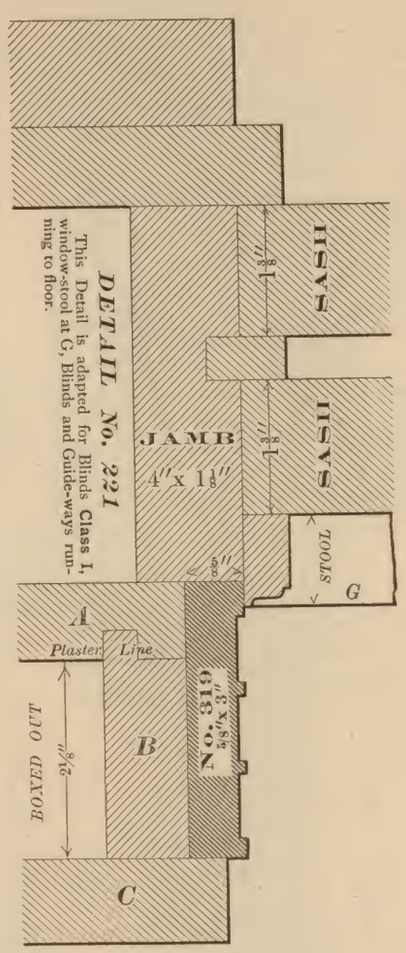
Half-Size Details of Window-Frames for Willer's Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3.

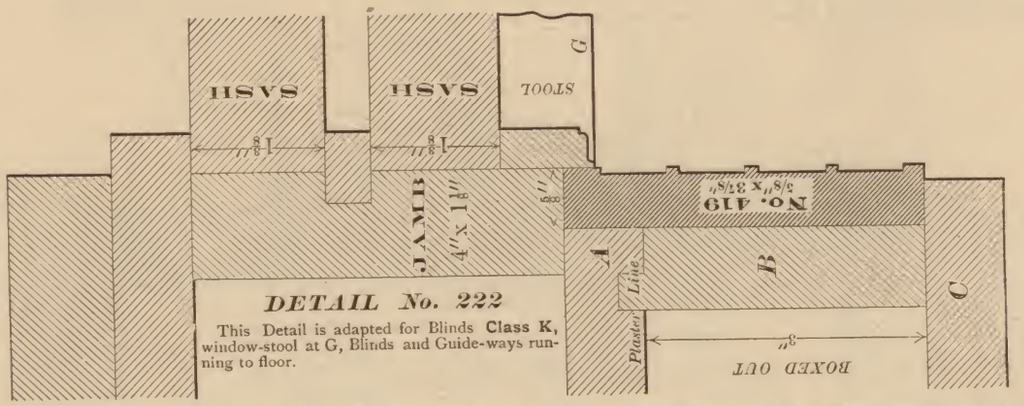
For Frame Buildings with 2 x 4 studding.

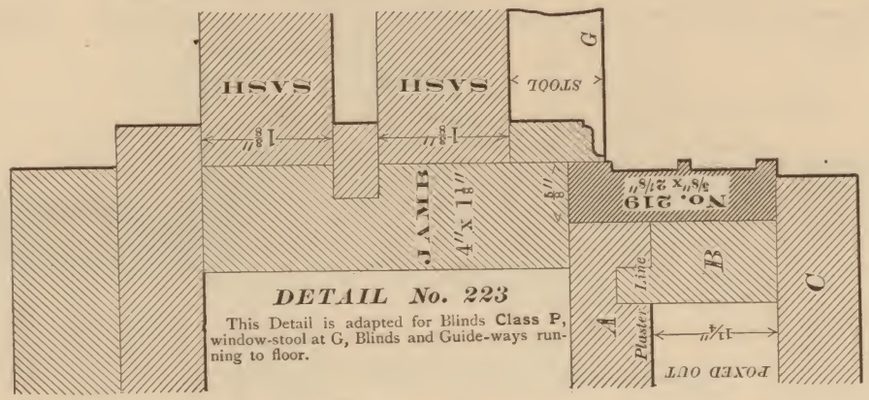






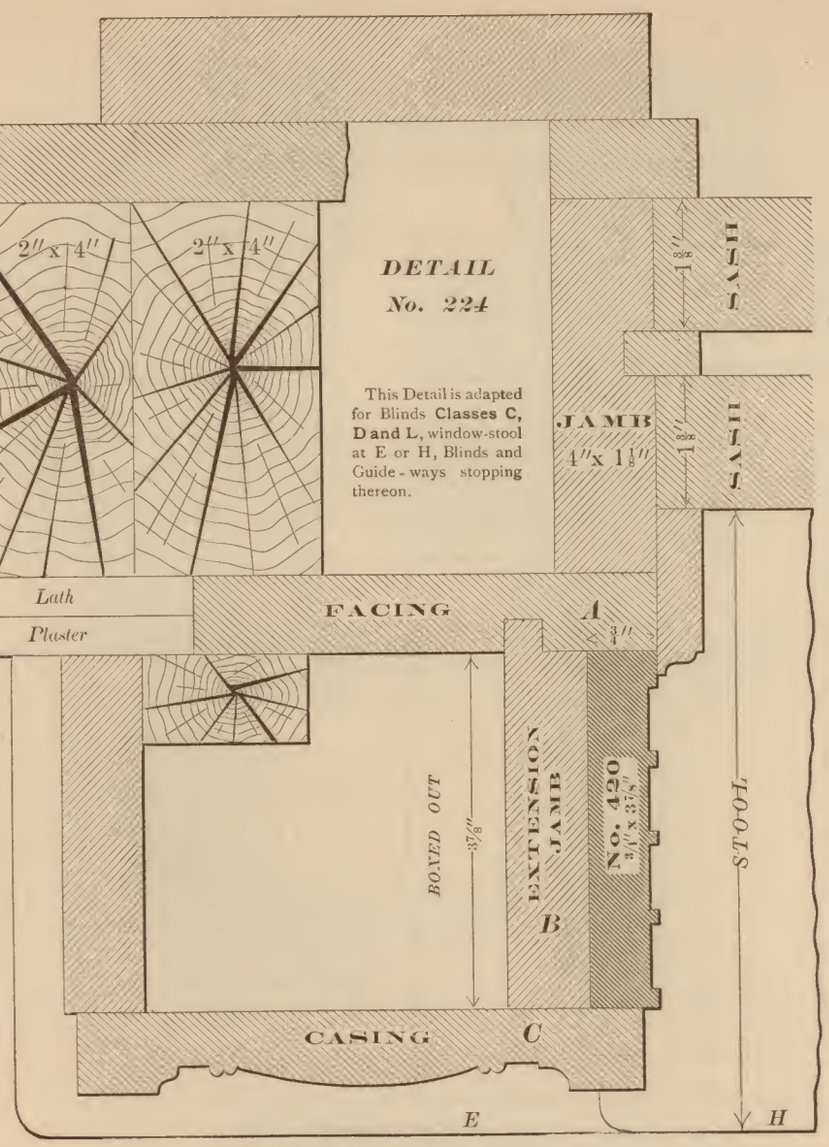


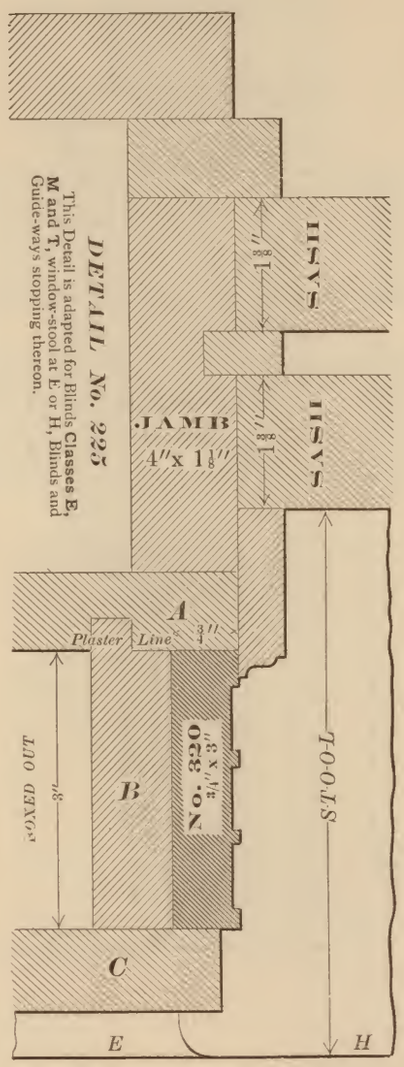


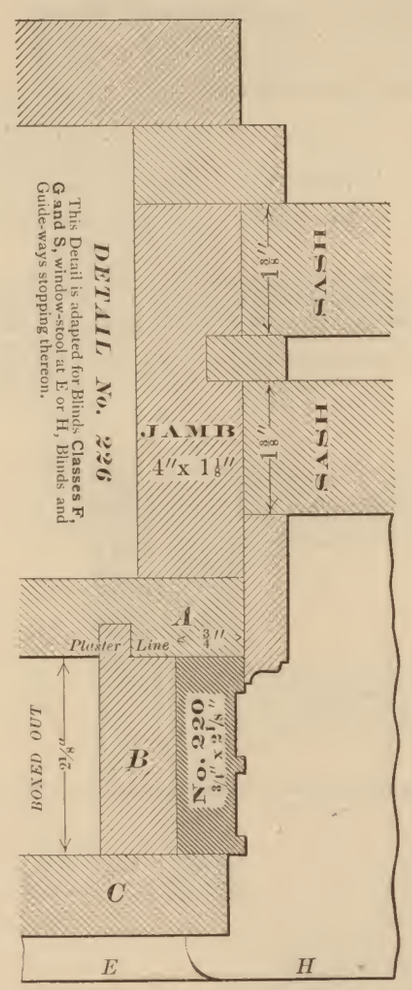


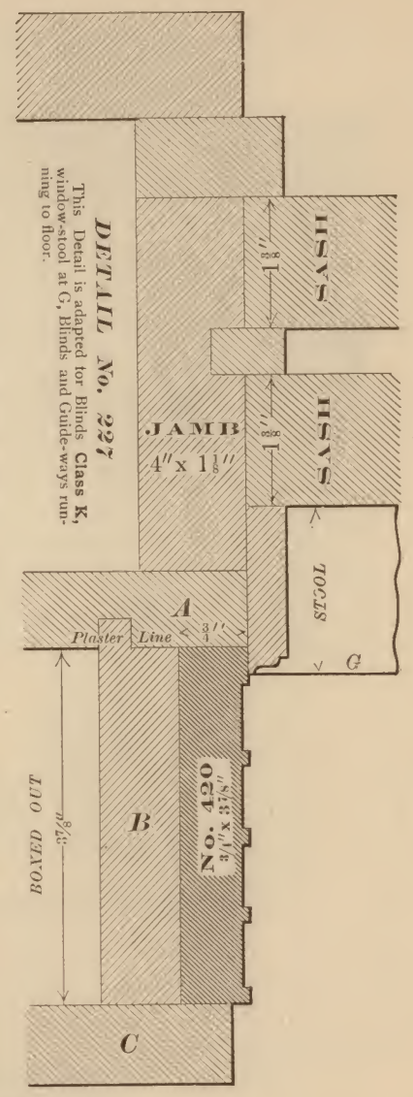
Half-Size Details of Window-Frames for Willer's Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3.

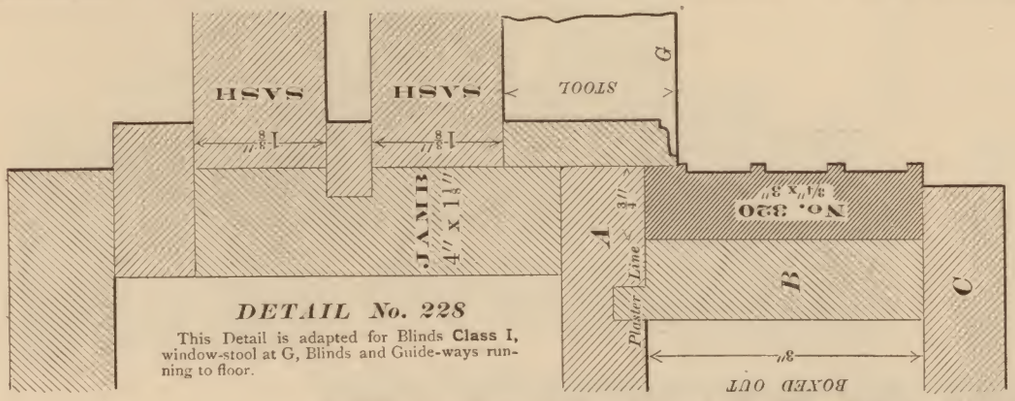
For Frame Buildings with 2 x 4 studding.

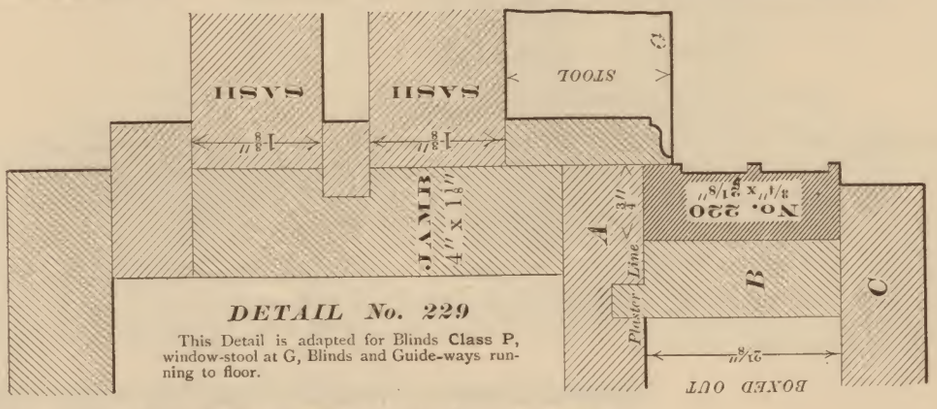






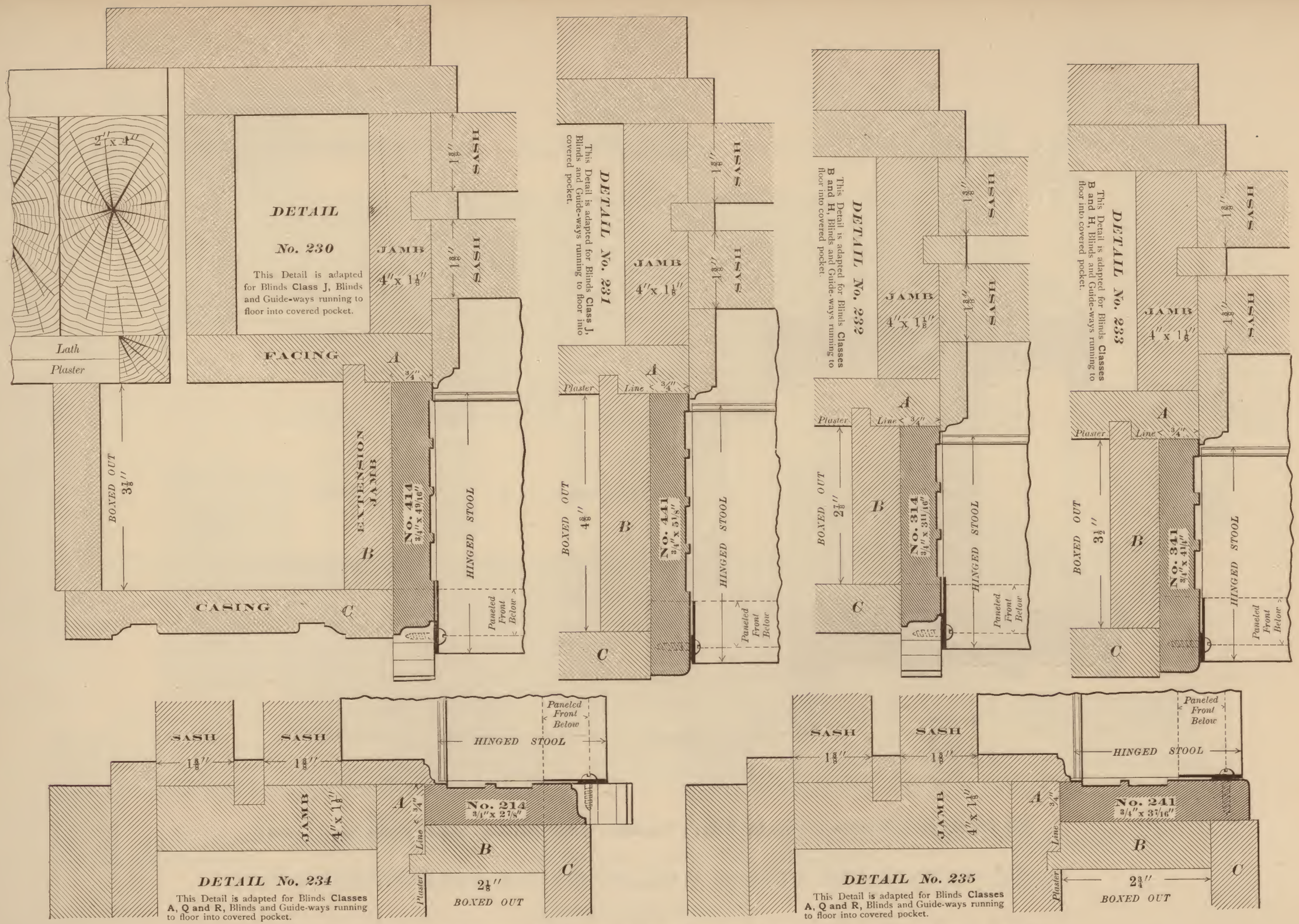






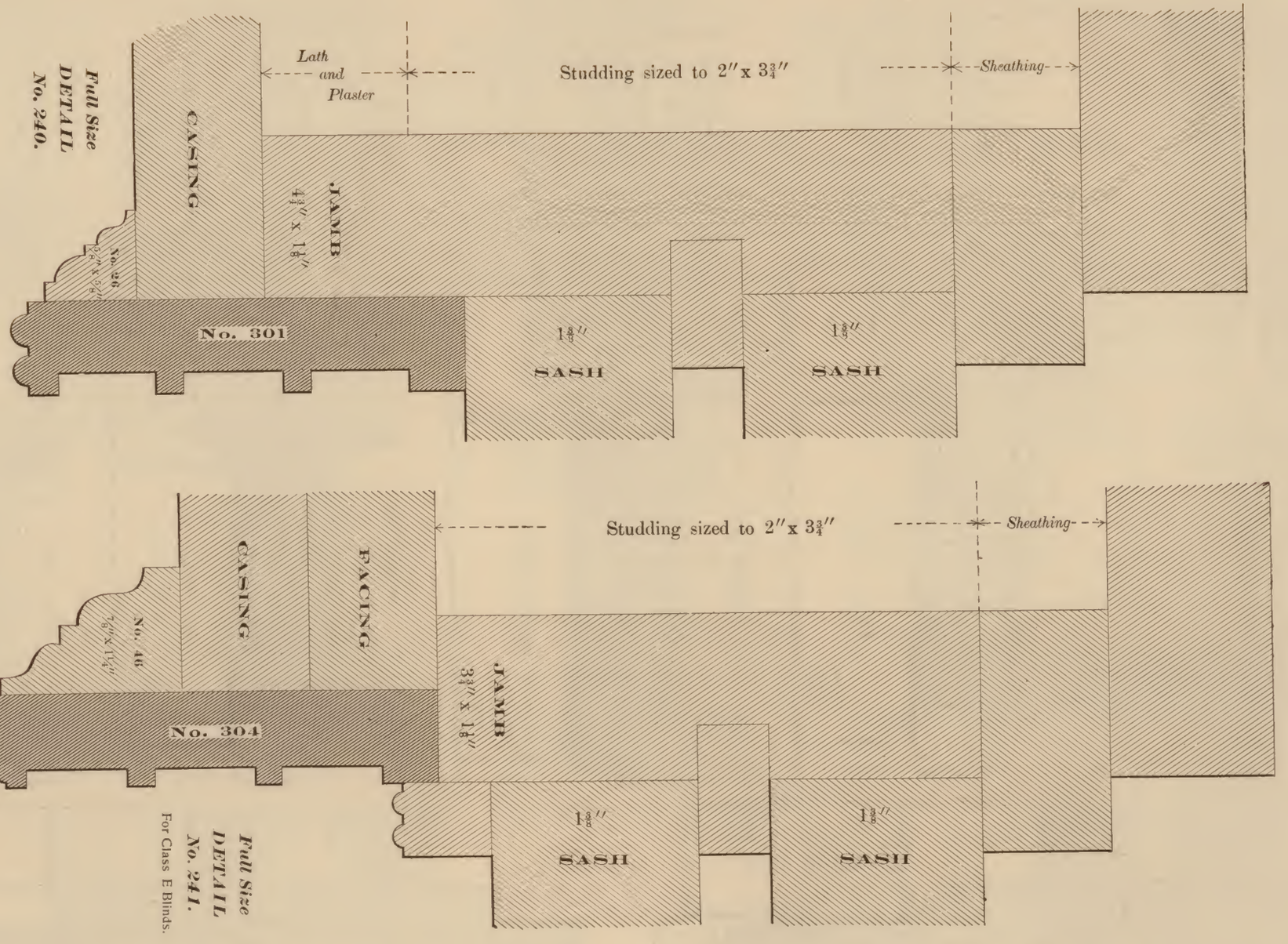
Half-Size Details of Window-Frames for Willer's Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3.

For Frame Buildings with 2 x 4 studding.



Half-Size Details of Window-Frames for Willer's Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3.

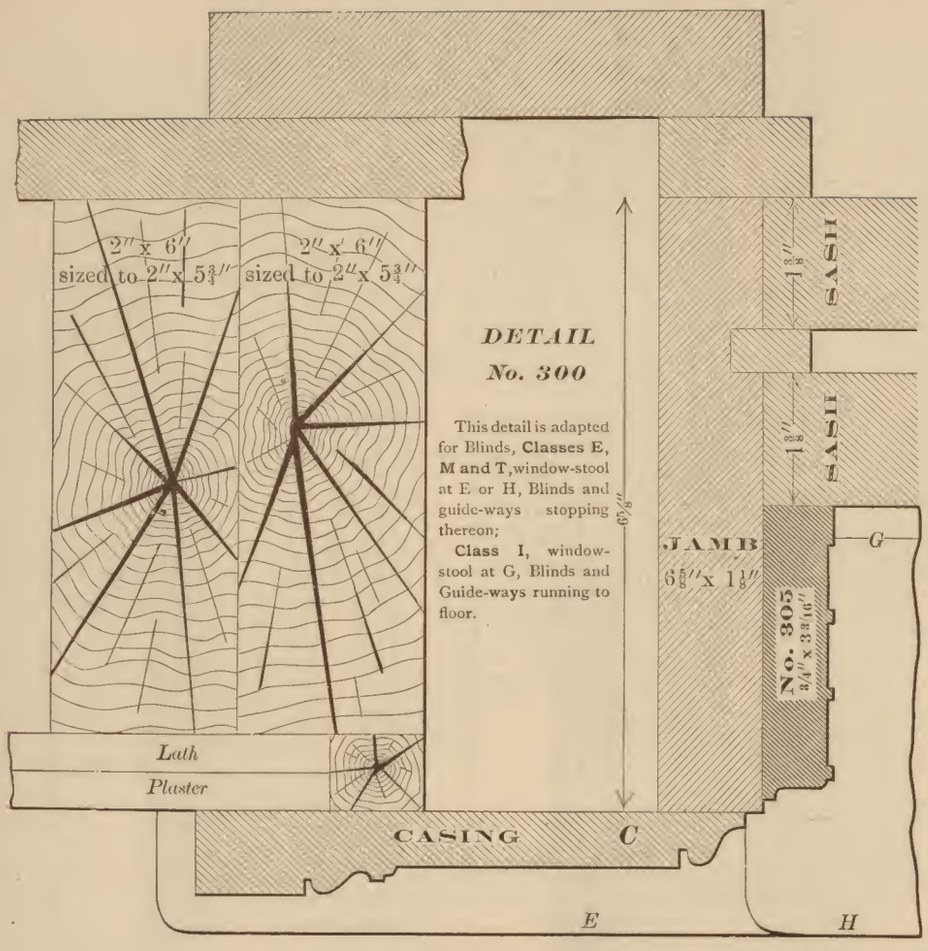
For Frame Buildings with 2 x 4 studding.



Full-Size Details of Window-Frames for Willer's Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3.

For Frame Buildings with 2 x 4 studding.

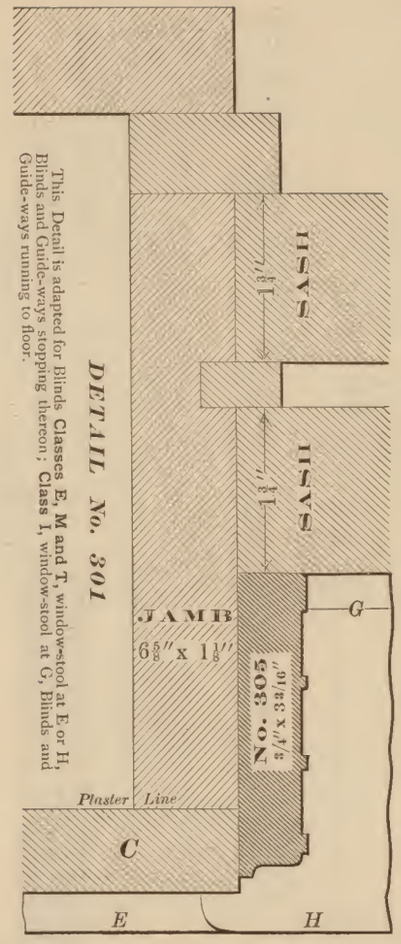
All the Details on preceding pages are drawn for 2 x 4 studding, not sized. In the above two Details, we show the studding sized to 3¾ inches wide.



DETAIL No. 300

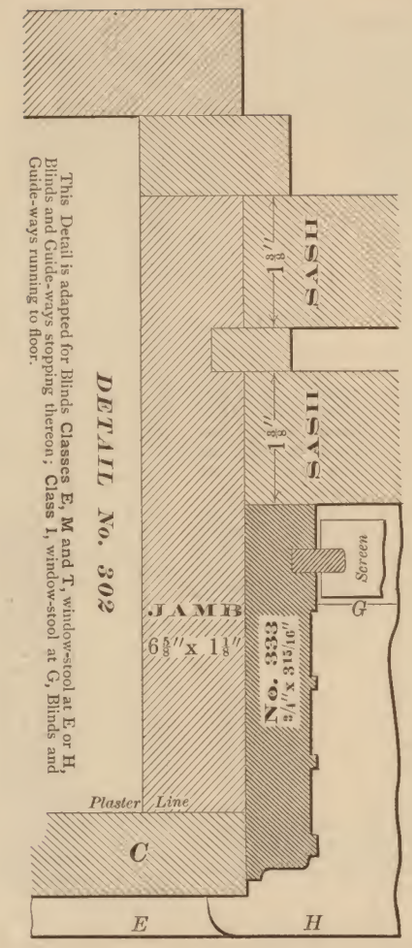
This detail is adapted for Blinds, **Classes E, M and T,** window-stool at E or H, Blinds and guide-ways stopping thereon;

Class I, window-stool at G, Blinds and Guide-ways running to floor.



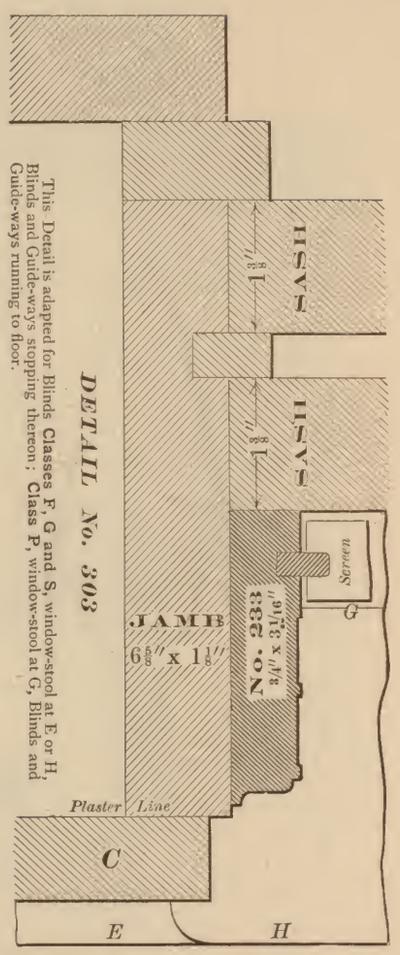
DETAIL No. 301

This Detail is adapted for Blinds **Classes E, M and T,** window-stool at E or H, Blinds and Guide-ways stopping thereon; **Class I,** window-stool at G, Blinds and Guide-ways running to floor.



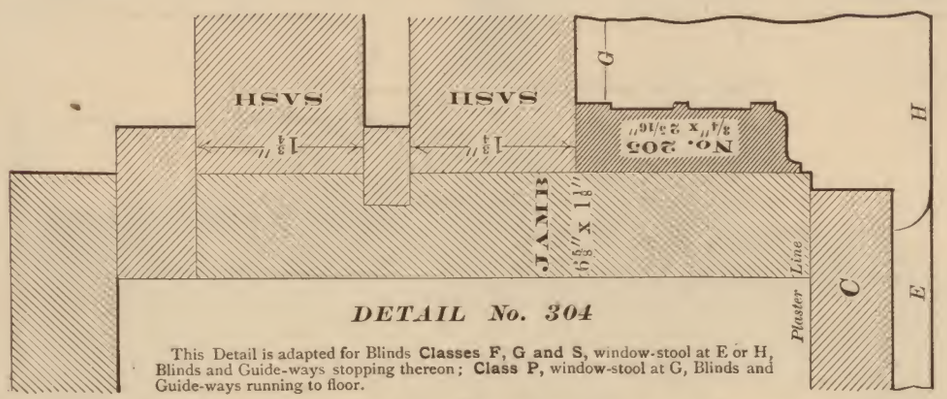
DETAIL No. 302

This Detail is adapted for Blinds **Classes E, M and T,** window-stool at E or H, Blinds and Guide-ways stopping thereon; **Class I,** window-stool at G, Blinds and Guide-ways running to floor.



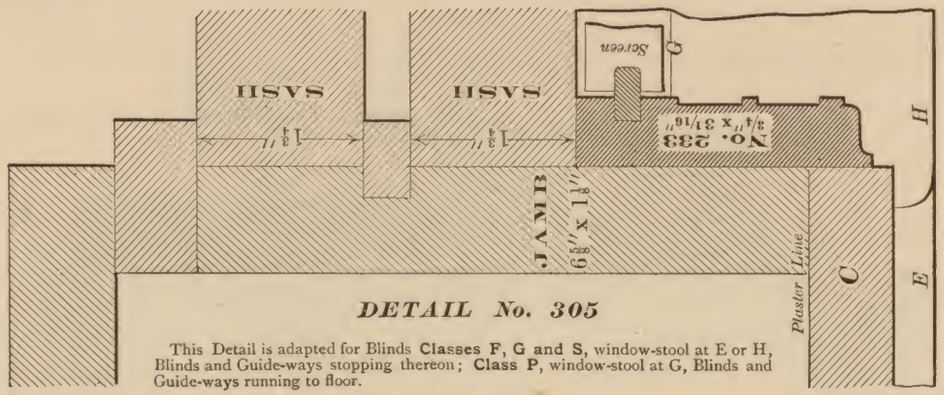
DETAIL No. 303

This Detail is adapted for Blinds **Classes F, G and S,** window-stool at E or H, Blinds and Guide-ways stopping thereon; **Class P,** window-stool at G, Blinds and Guide-ways running to floor.



DETAIL No. 304

This Detail is adapted for Blinds **Classes F, G and S,** window-stool at E or H, Blinds and Guide-ways stopping thereon; **Class P,** window-stool at G, Blinds and Guide-ways running to floor.

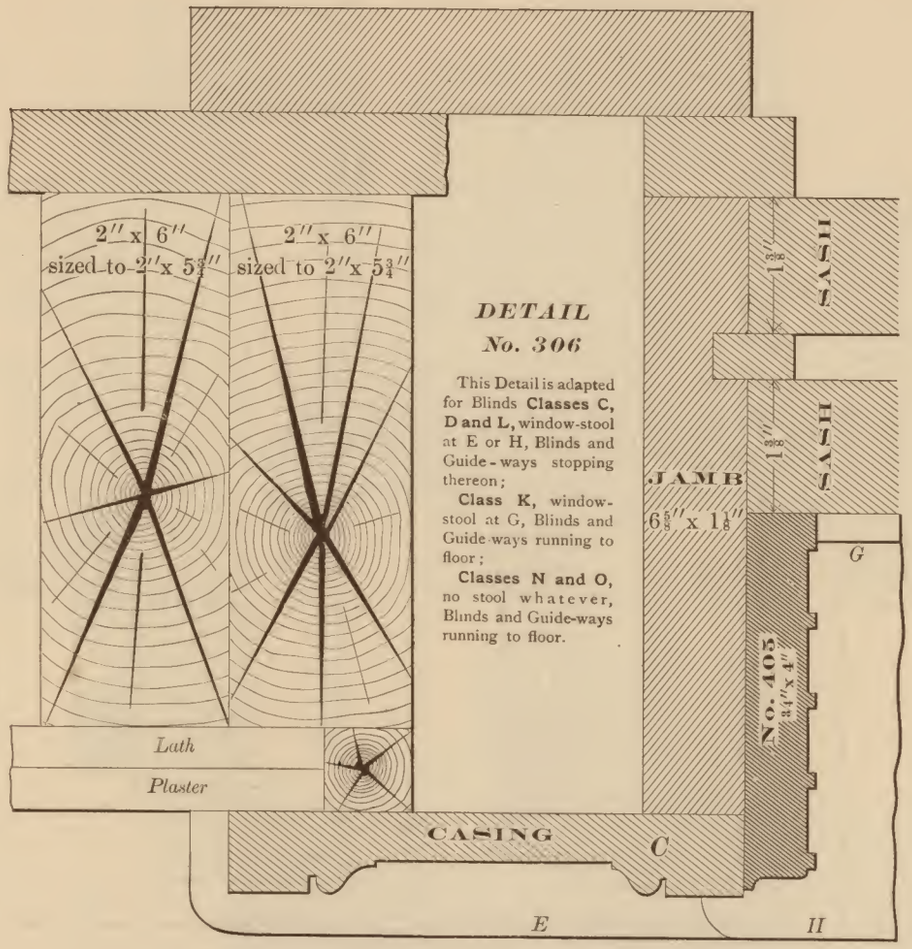


DETAIL No. 305

This Detail is adapted for Blinds **Classes F, G and S,** window-stool at E or H, Blinds and Guide-ways stopping thereon; **Class P,** window-stool at G, Blinds and Guide-ways running to floor.

Half-Size Details of Window-Frames for Willer's Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3.

For Frame Buildings with 2 x 6 studding.

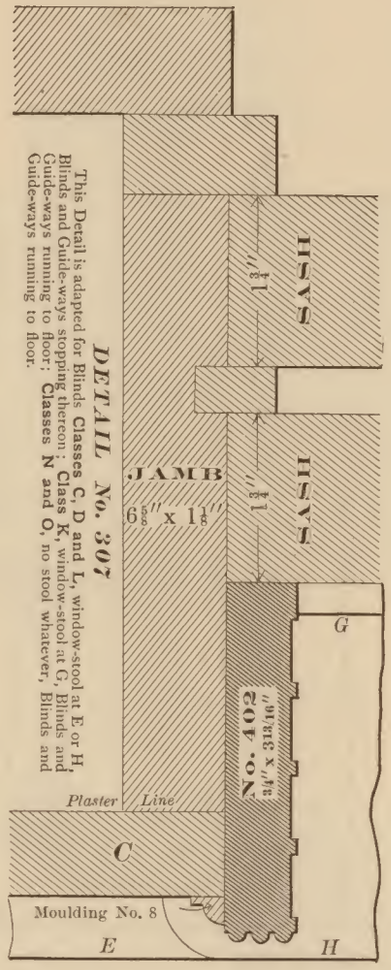


DETAIL No. 306

This Detail is adapted for Blinds **Classes C, D and L,** window-stool at E or H, Blinds and Guide-ways stopping thereon;

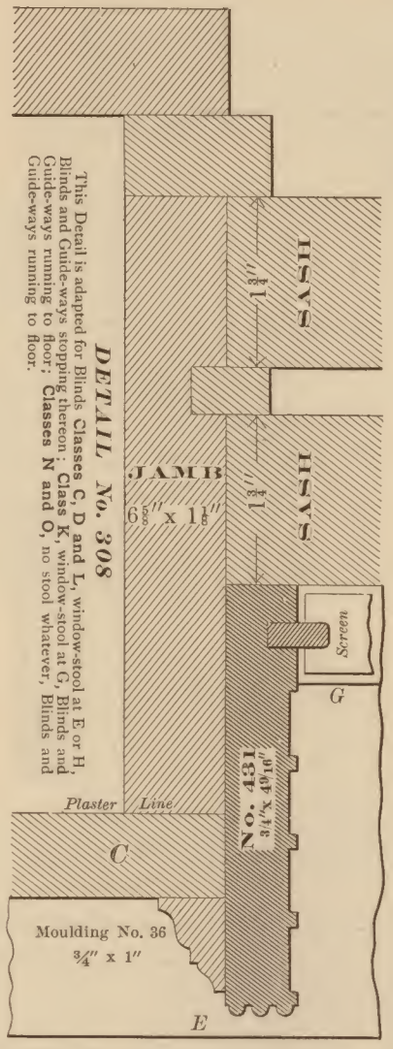
Class K, window-stool at G, Blinds and Guide-ways running to floor;

Classes N and O, no stool whatever, Blinds and Guide-ways running to floor.



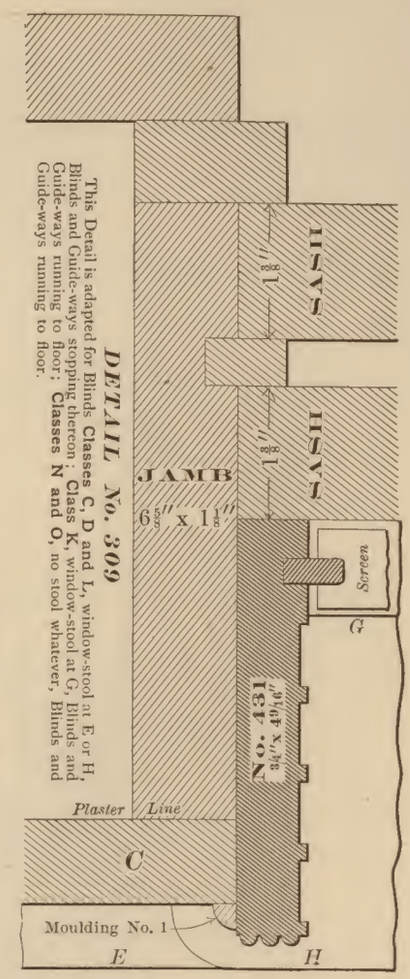
DETAIL No. 307

This Detail is adapted for Blinds **Classes C, D and L,** window-stool at E or H, Blinds and Guide-ways stopping thereon; **Class K,** window-stool at G, Blinds and Guide-ways running to floor; **Classes N and O,** no stool whatever, Blinds and Guide-ways running to floor.



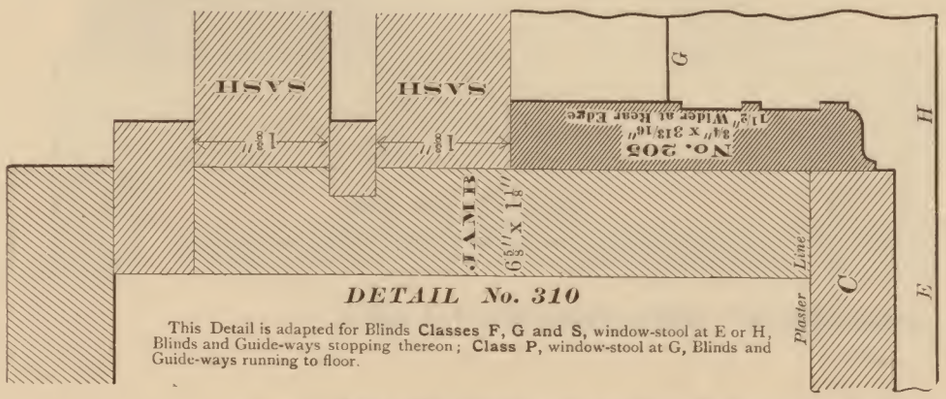
DETAIL No. 308

This Detail is adapted for Blinds **Classes C, D and L,** window-stool at E or H, Blinds and Guide-ways stopping thereon; **Class K,** window-stool at G, Blinds and Guide-ways running to floor; **Classes N and O,** no stool whatever, Blinds and Guide-ways running to floor.



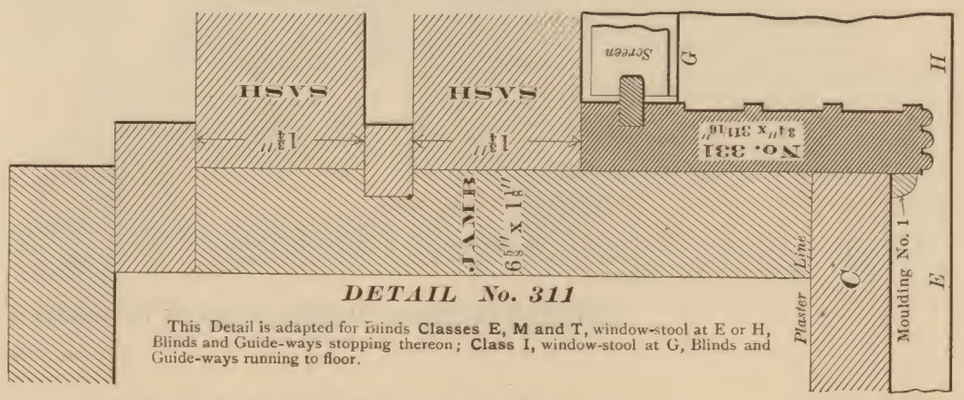
DETAIL No. 309

This Detail is adapted for Blinds **Classes C, D and L,** window-stool at E or H, Blinds and Guide-ways stopping thereon; **Class K,** window-stool at G, Blinds and Guide-ways running to floor; **Classes N and O,** no stool whatever, Blinds and Guide-ways running to floor.



DETAIL No. 310

This Detail is adapted for Blinds **Classes F, G and S,** window-stool at E or H, Blinds and Guide-ways stopping thereon; **Class P,** window-stool at G, Blinds and Guide-ways running to floor.

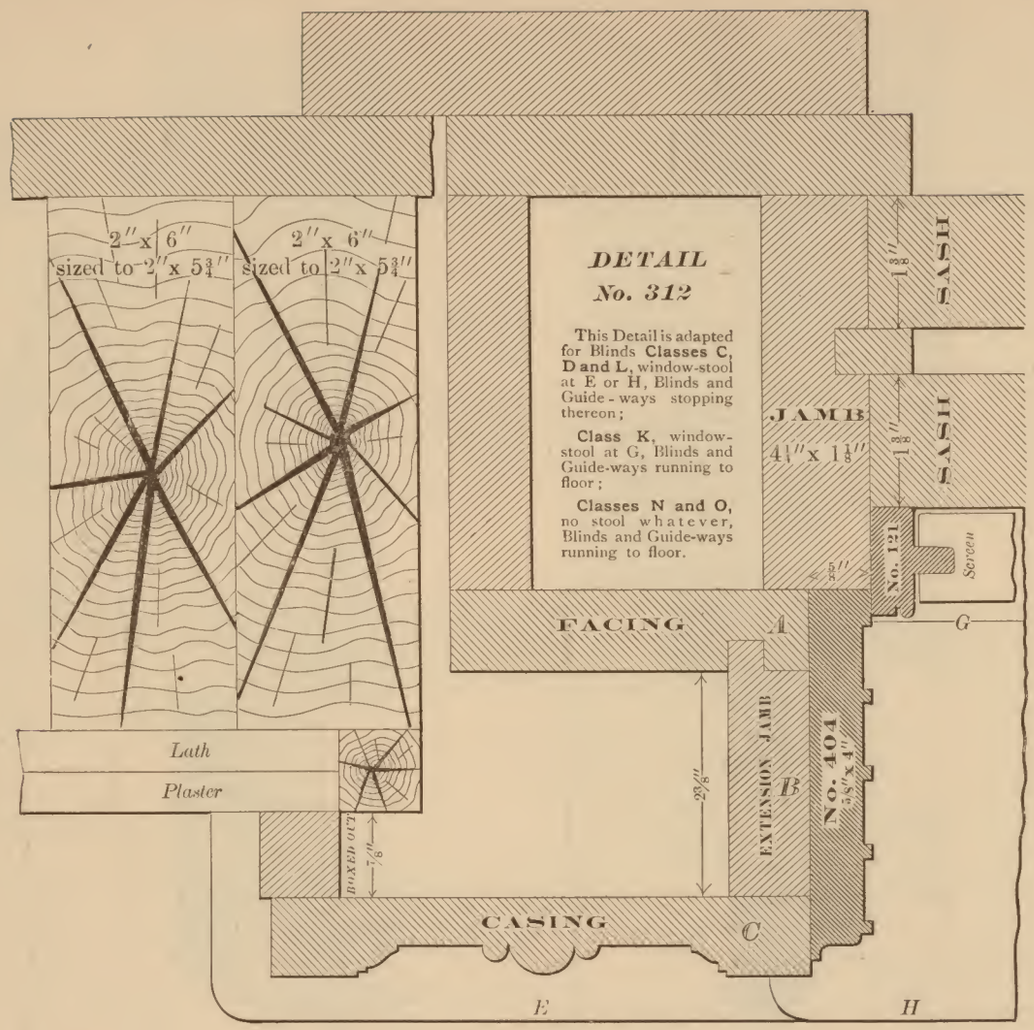


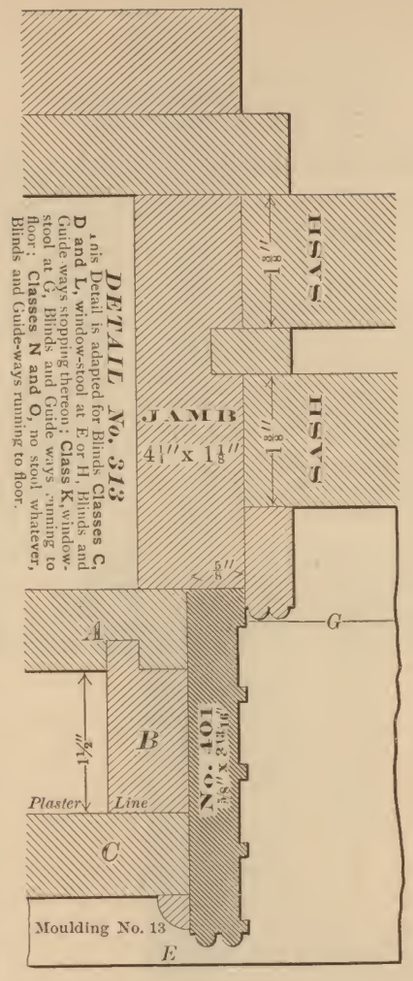
DETAIL No. 311

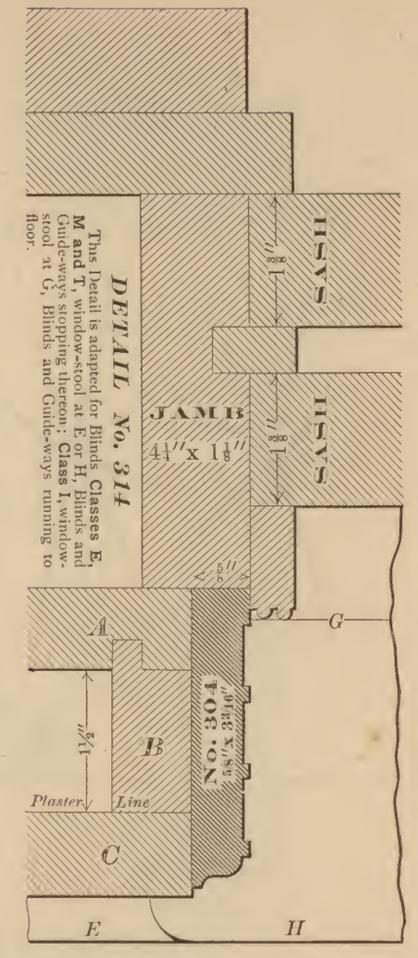
This Detail is adapted for Blinds **Classes E, M and T,** window-stool at E or H, Blinds and Guide-ways stopping thereon; **Class I,** window-stool at G, Blinds and Guide-ways running to floor.

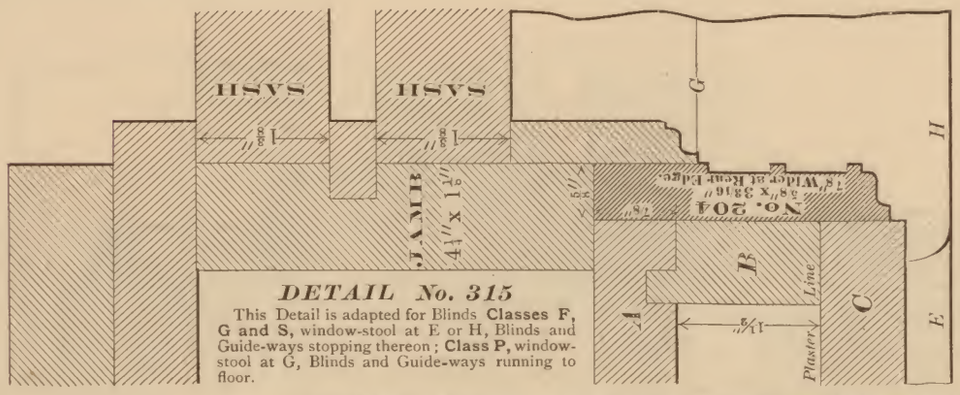
Half-Size Details of Window-Frames for Willer's Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3.

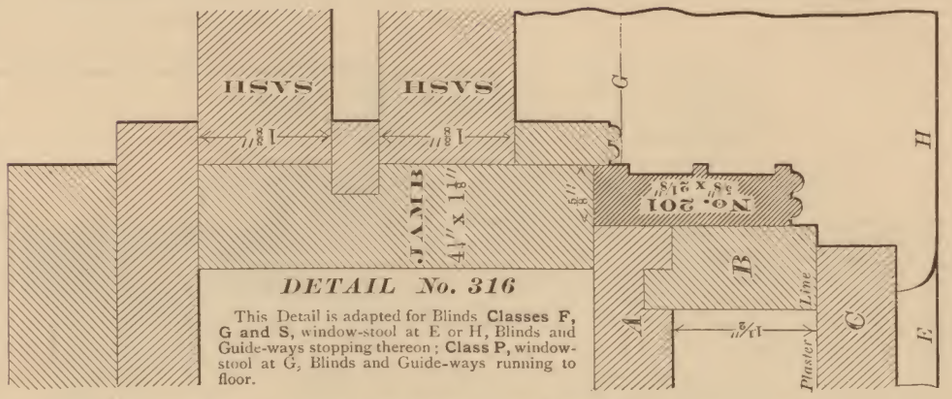
For Frame Buildings with 2 x 6 studding.





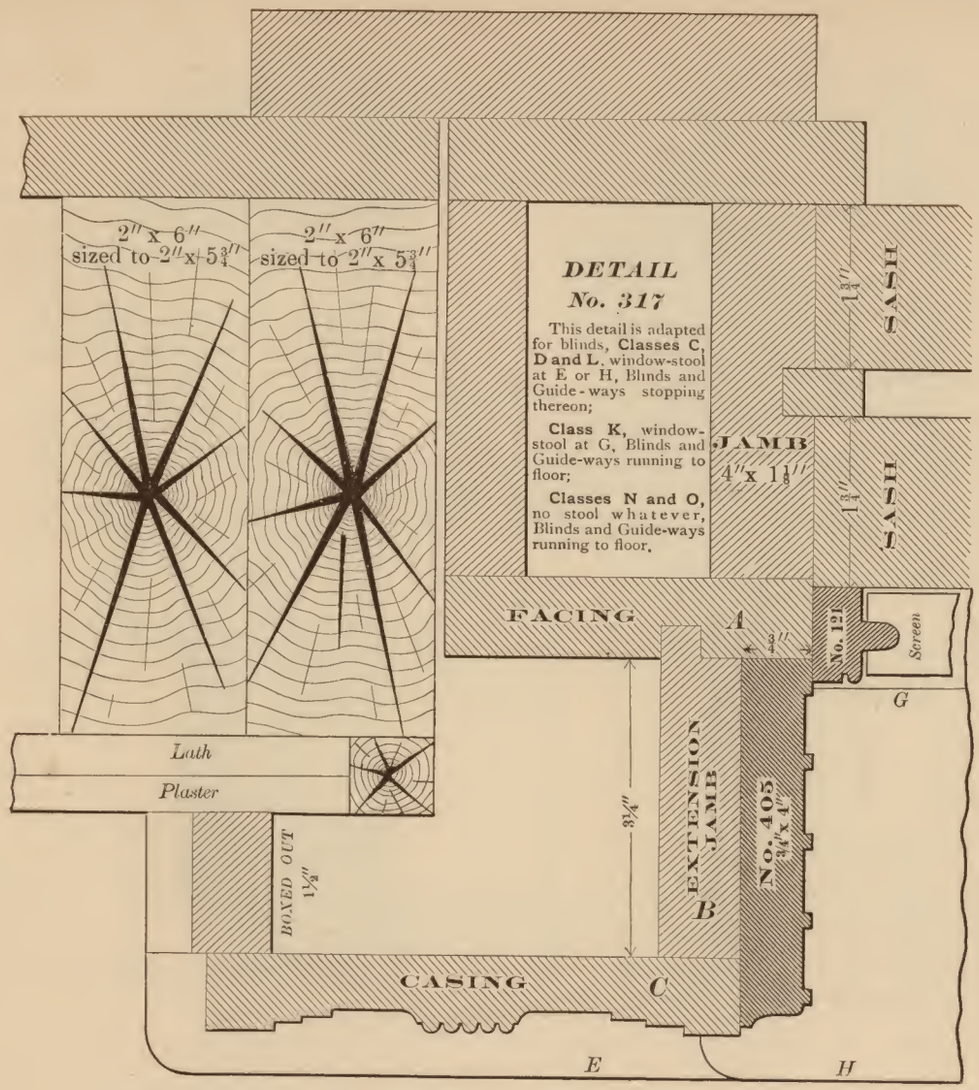






Half-Size Details of Window-Frames for Willer's Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3.

For Frame Buildings with 2 x 6 studding.

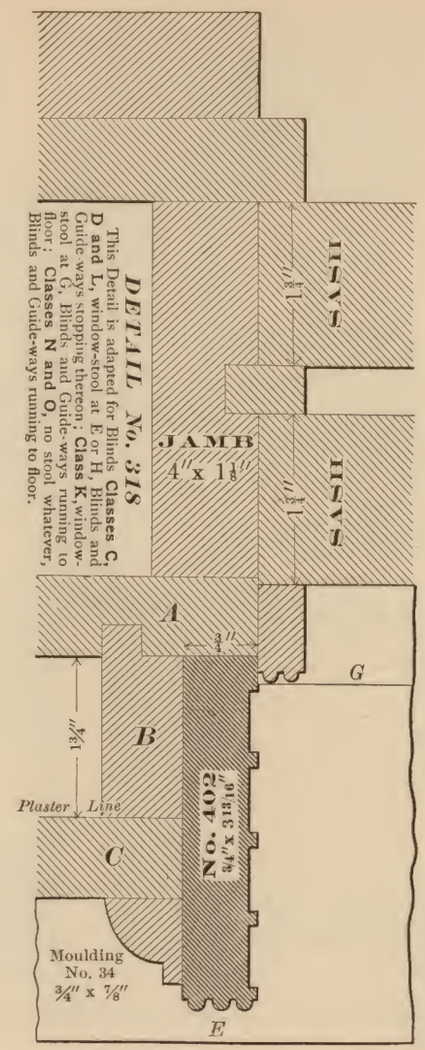


DETAIL No. 317

This detail is adapted for blinds, **Classes C, D and L**, window-stool at E or H, Blinds and Guide-ways stopping thereon;

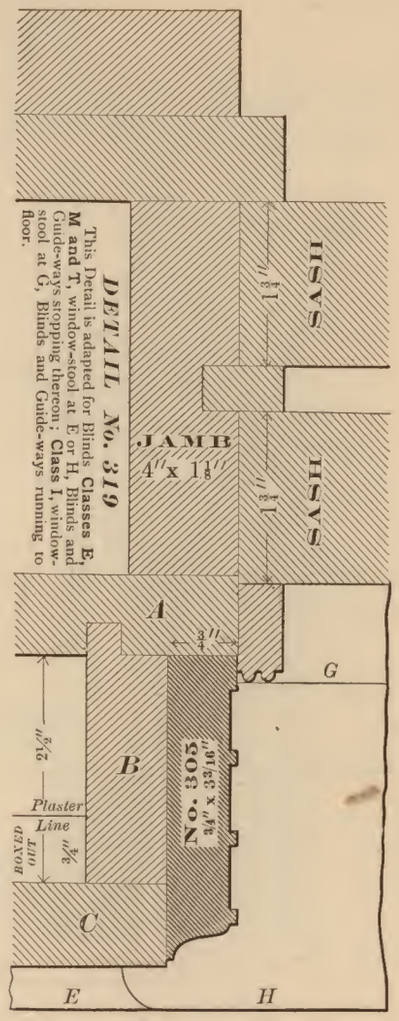
Class K, window-stool at G, Blinds and Guide-ways running to floor;

Classes N and O, no stool whatever, Blinds and Guide-ways running to floor.



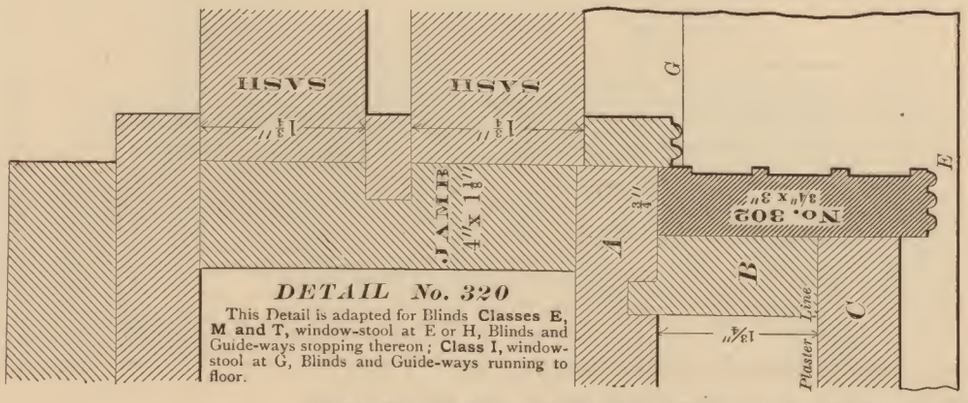
DETAIL No. 318

This Detail is adapted for Blinds **Classes C, D and L**, window-stool at E or H, Blinds and Guide-ways stopping thereon; **Class K**, window-stool at G, Blinds and Guide-ways running to floor; **Classes N and O**, no stool whatever, Blinds and Guide-ways running to floor.



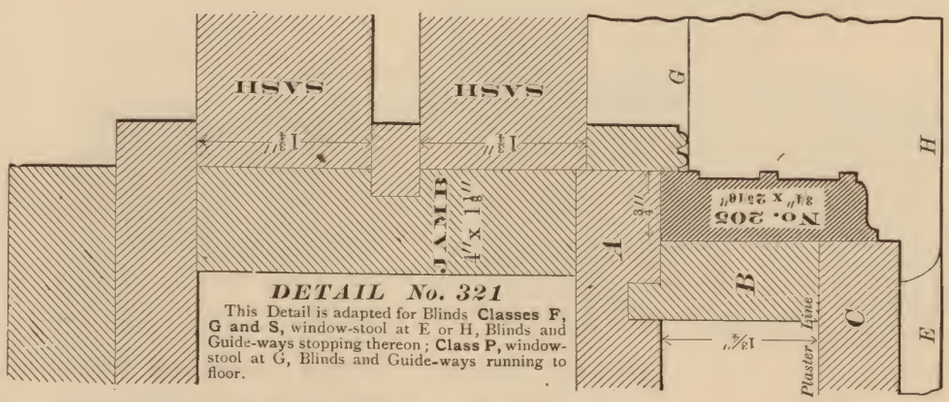
DETAIL No. 319

This Detail is adapted for Blinds **Classes E, M and T**, window-stool at E or H, Blinds and Guide-ways stopping thereon; **Class I**, window-stool at G, Blinds and Guide-ways running to floor.



DETAIL No. 320

This Detail is adapted for Blinds **Classes E, M and T**, window-stool at E or H, Blinds and Guide-ways stopping thereon; **Class I**, window-stool at G, Blinds and Guide-ways running to floor.

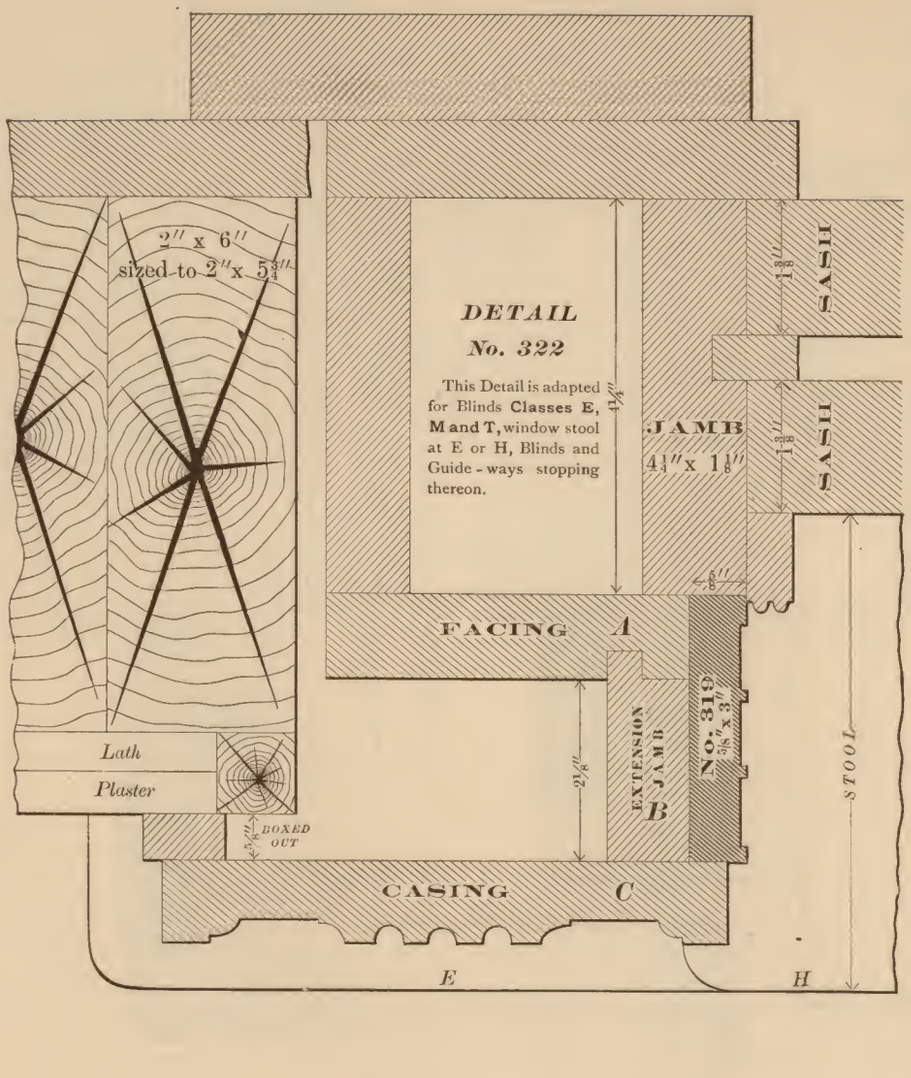


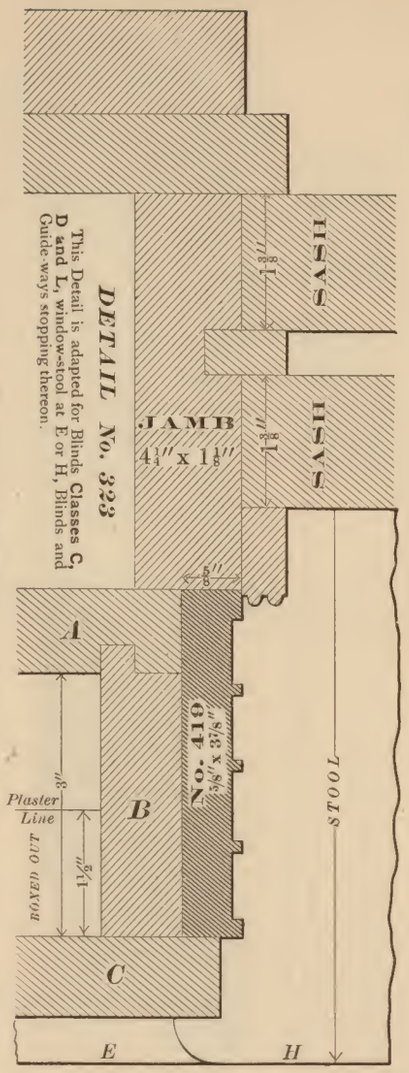
DETAIL No. 321

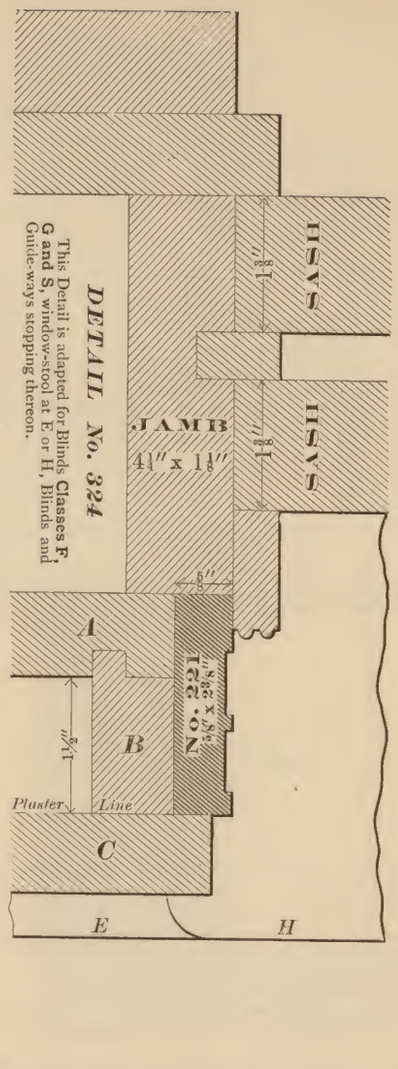
This Detail is adapted for Blinds **Classes F, G and S**, window-stool at E or H, Blinds and Guide-ways stopping thereon; **Class P**, window-stool at G, Blinds and Guide-ways running to floor.

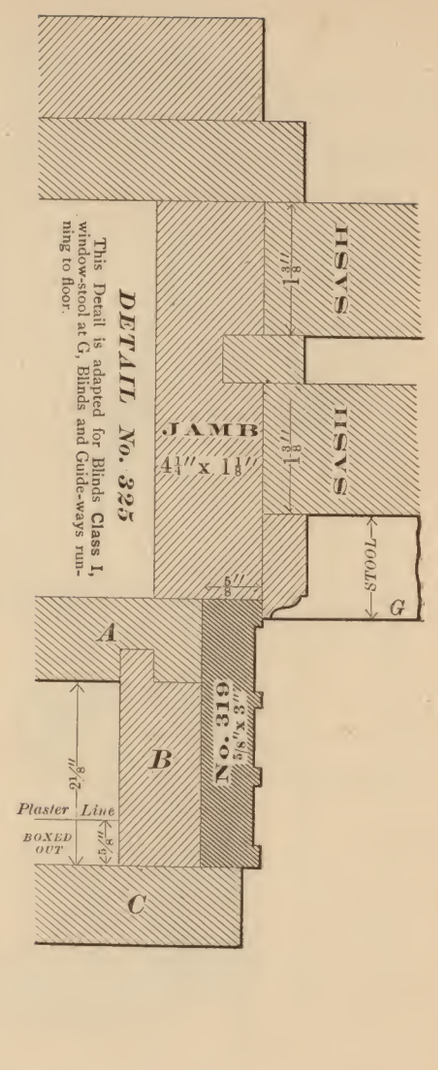
Half-Size Details of Window-Frames for Willer's Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3.

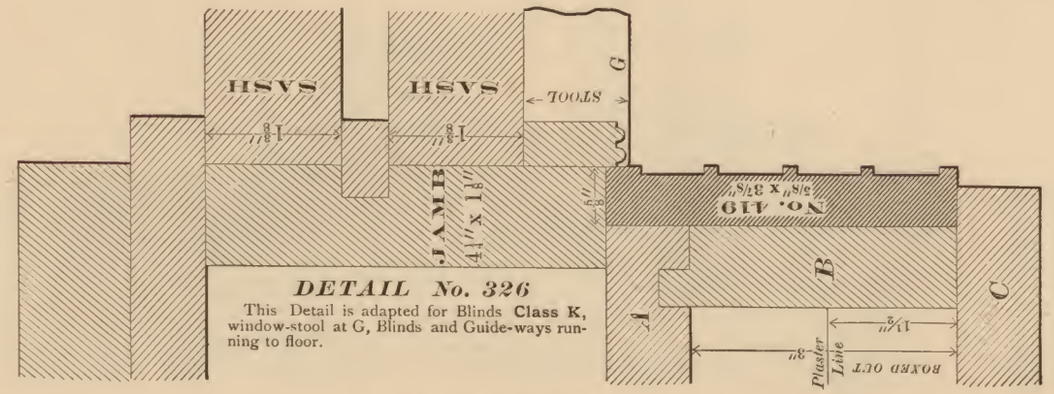
For Frame Buildings with 2 x 6 studding.

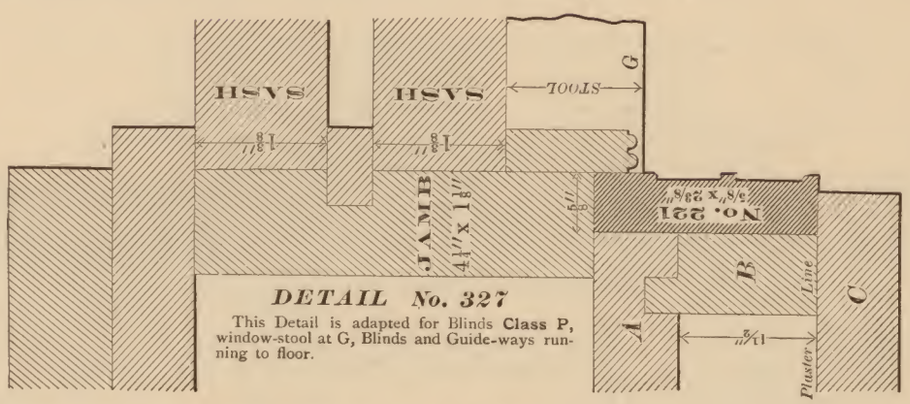






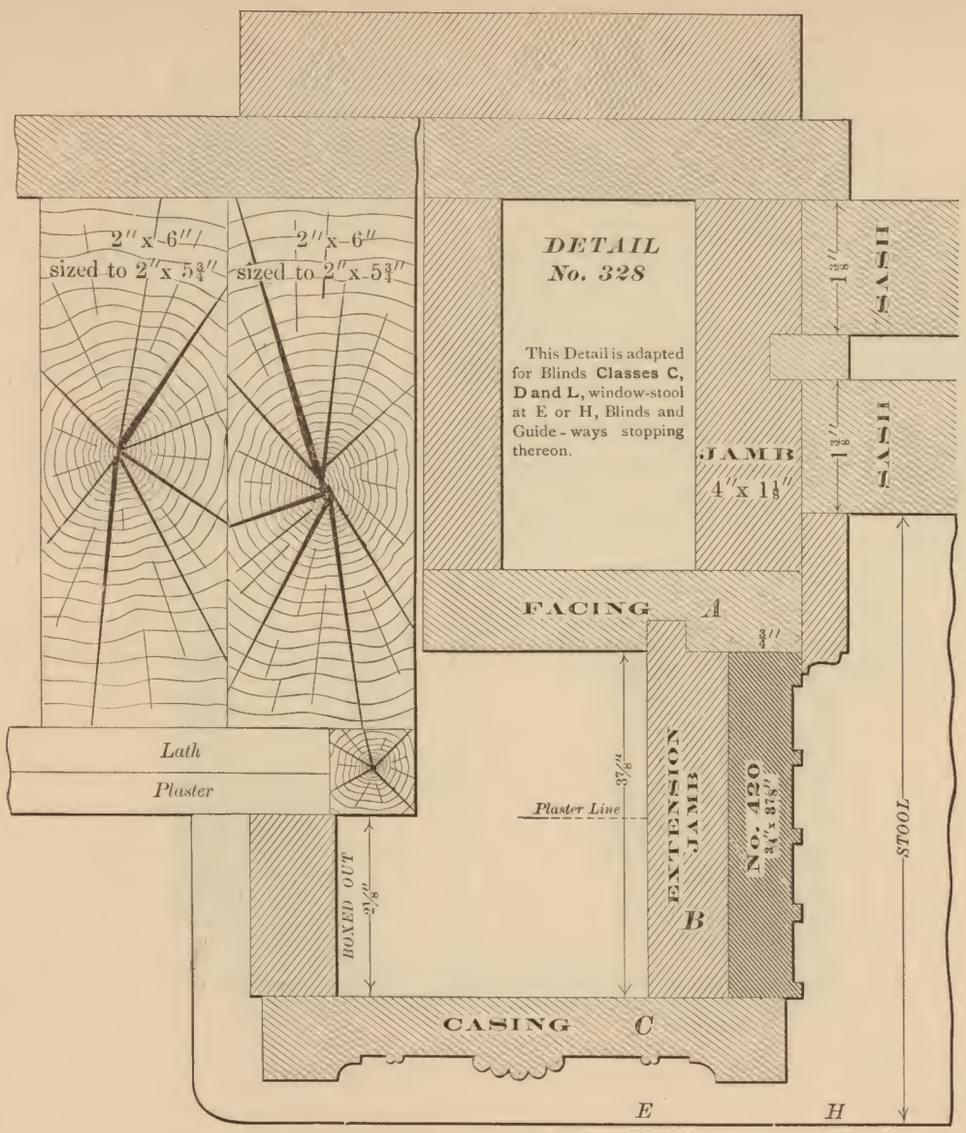


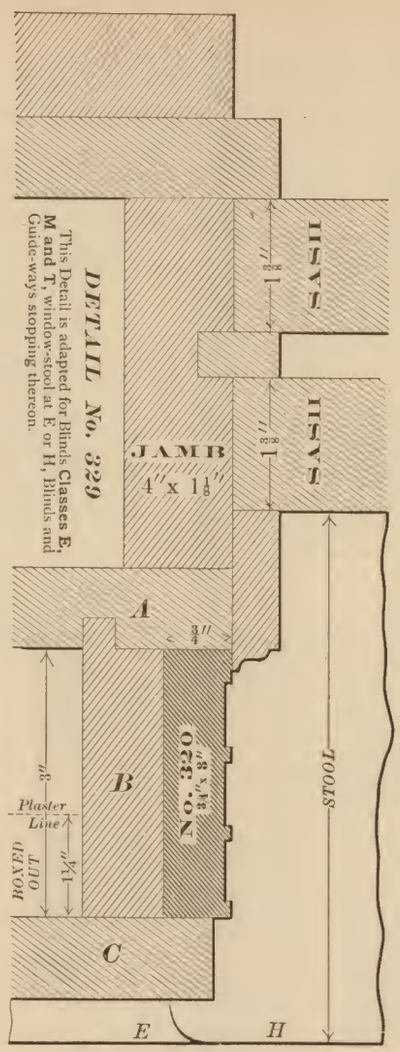


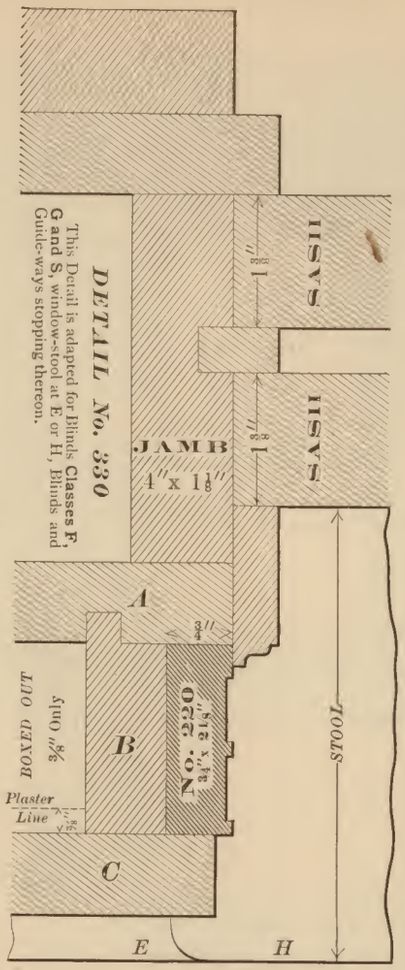


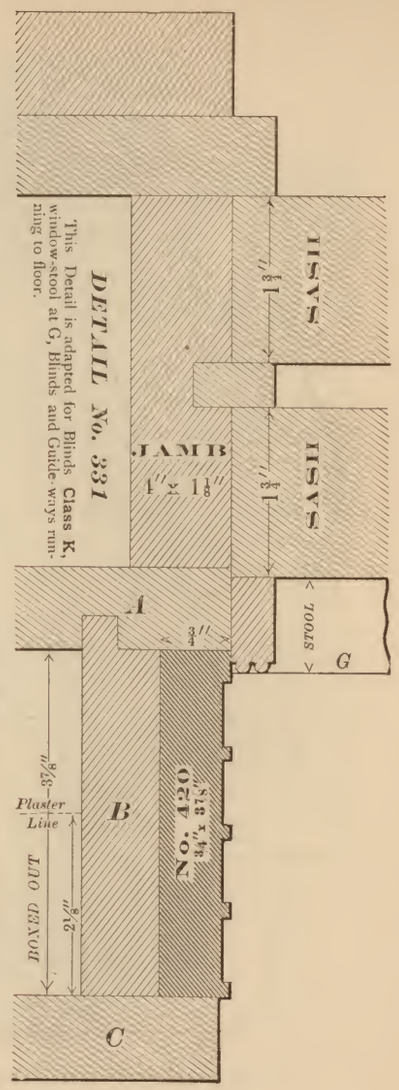
Half-Size Details of Window-Frames for Willer's Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3.

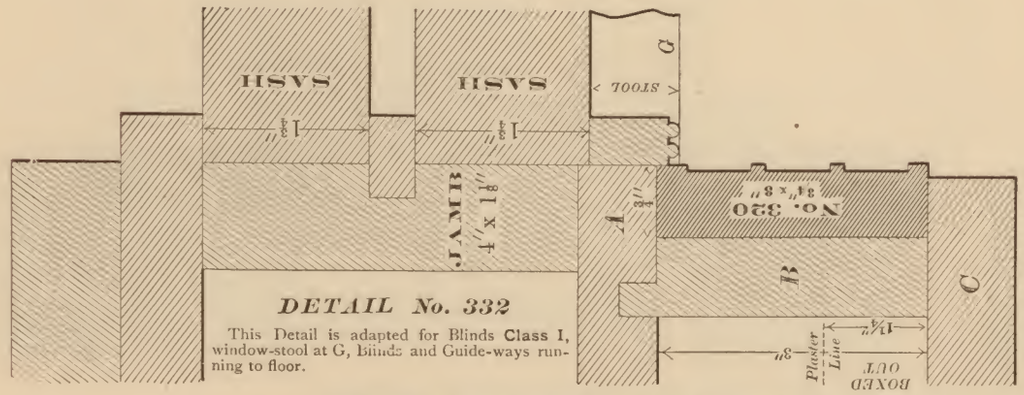
For Frame Buildings with 2 x 6 studding.

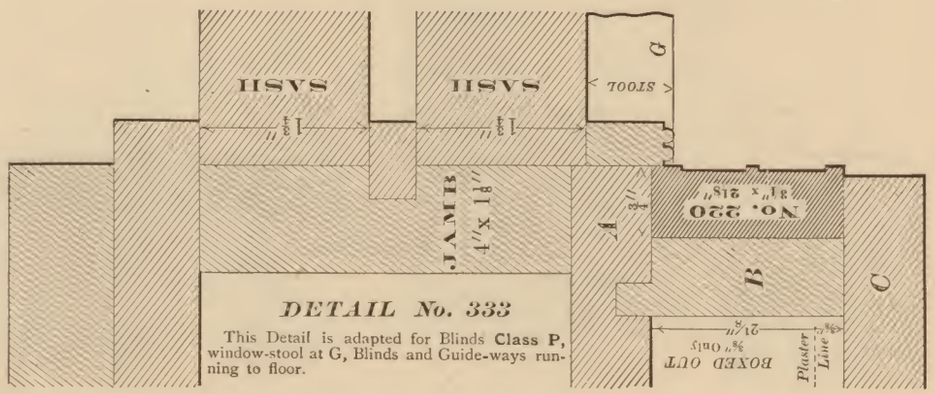






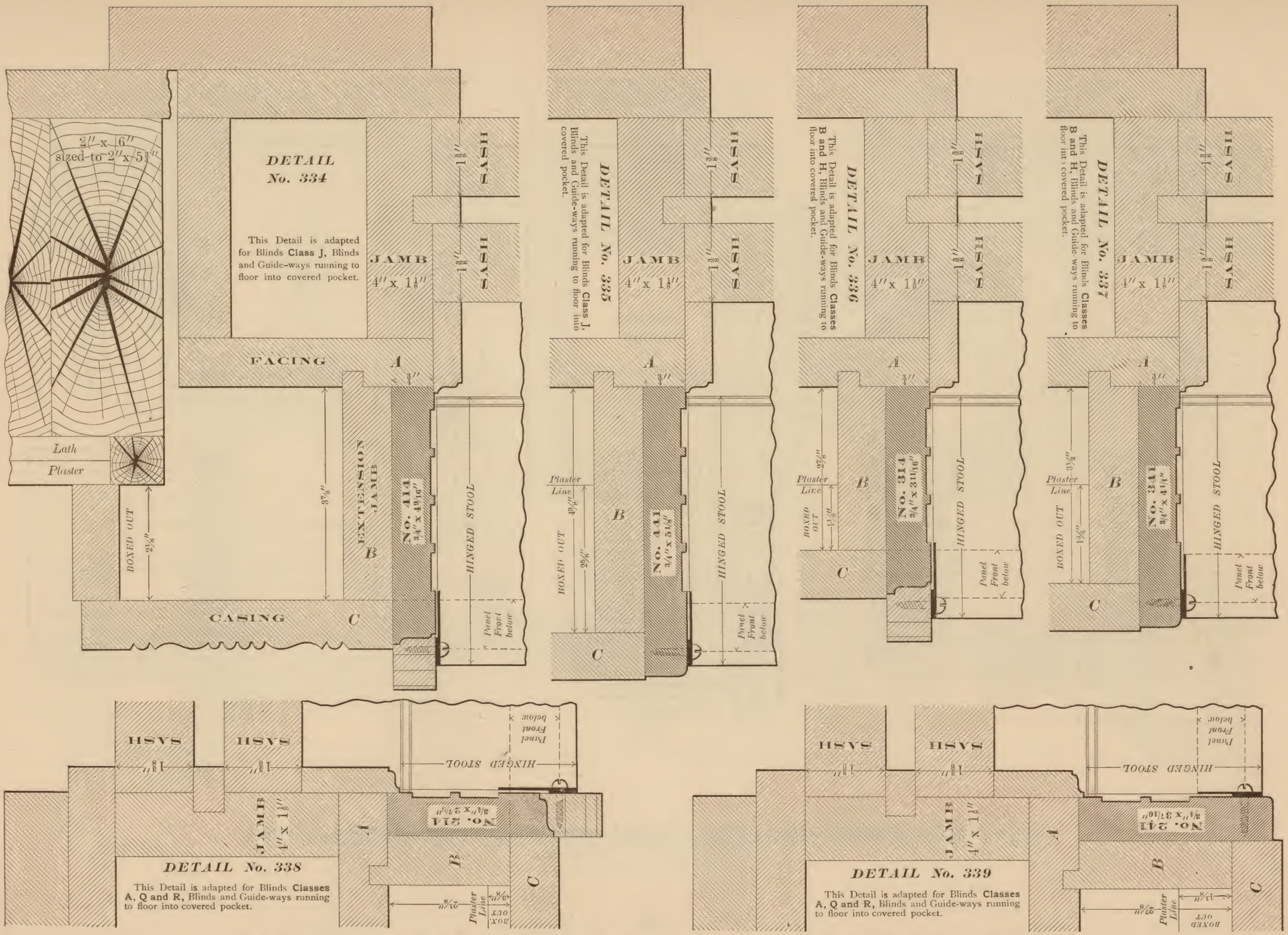






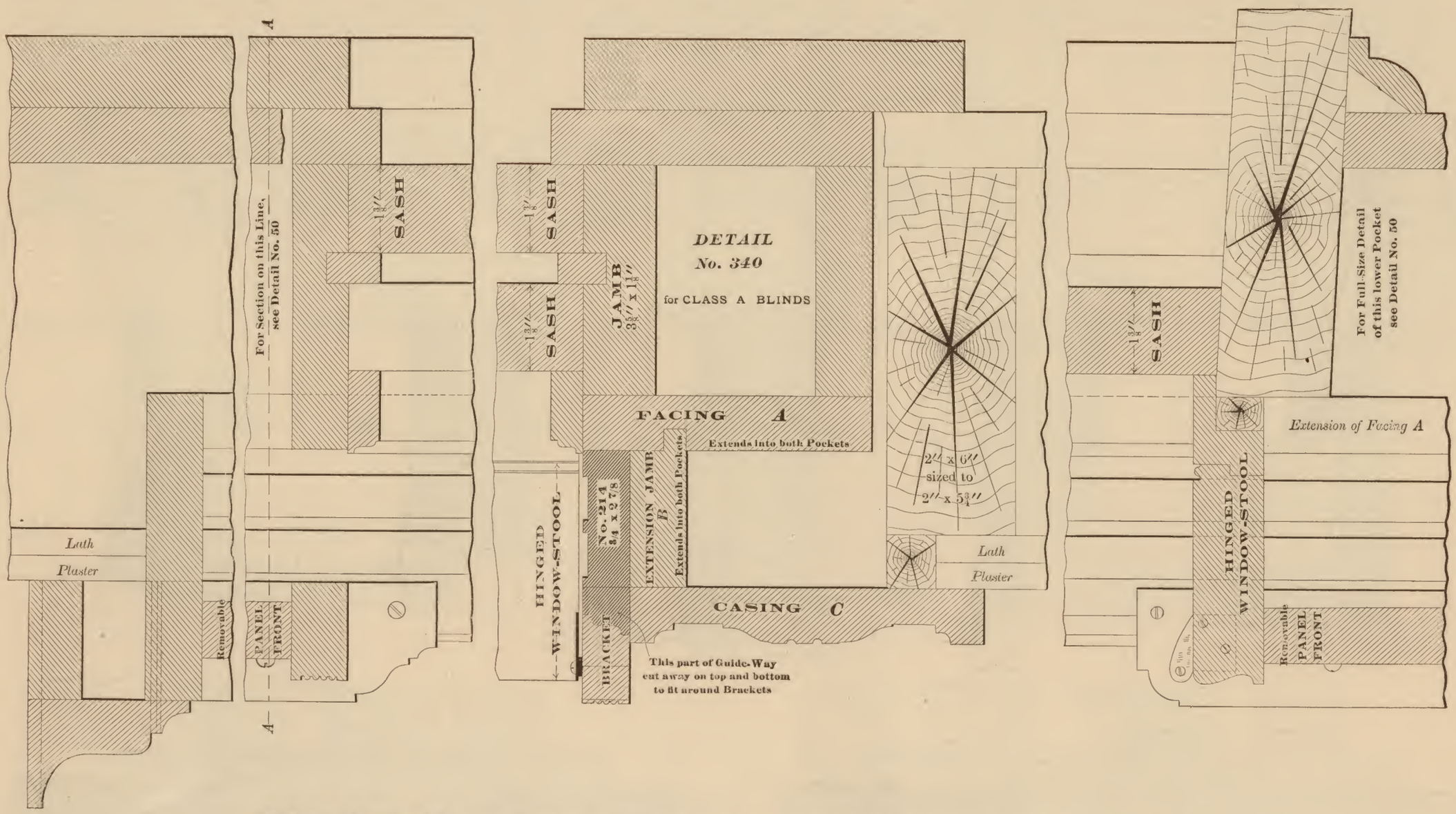
Half-Size Details of Window-Frames for Willer's Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3.

For Frame Buildings with 2 x 6 studding.



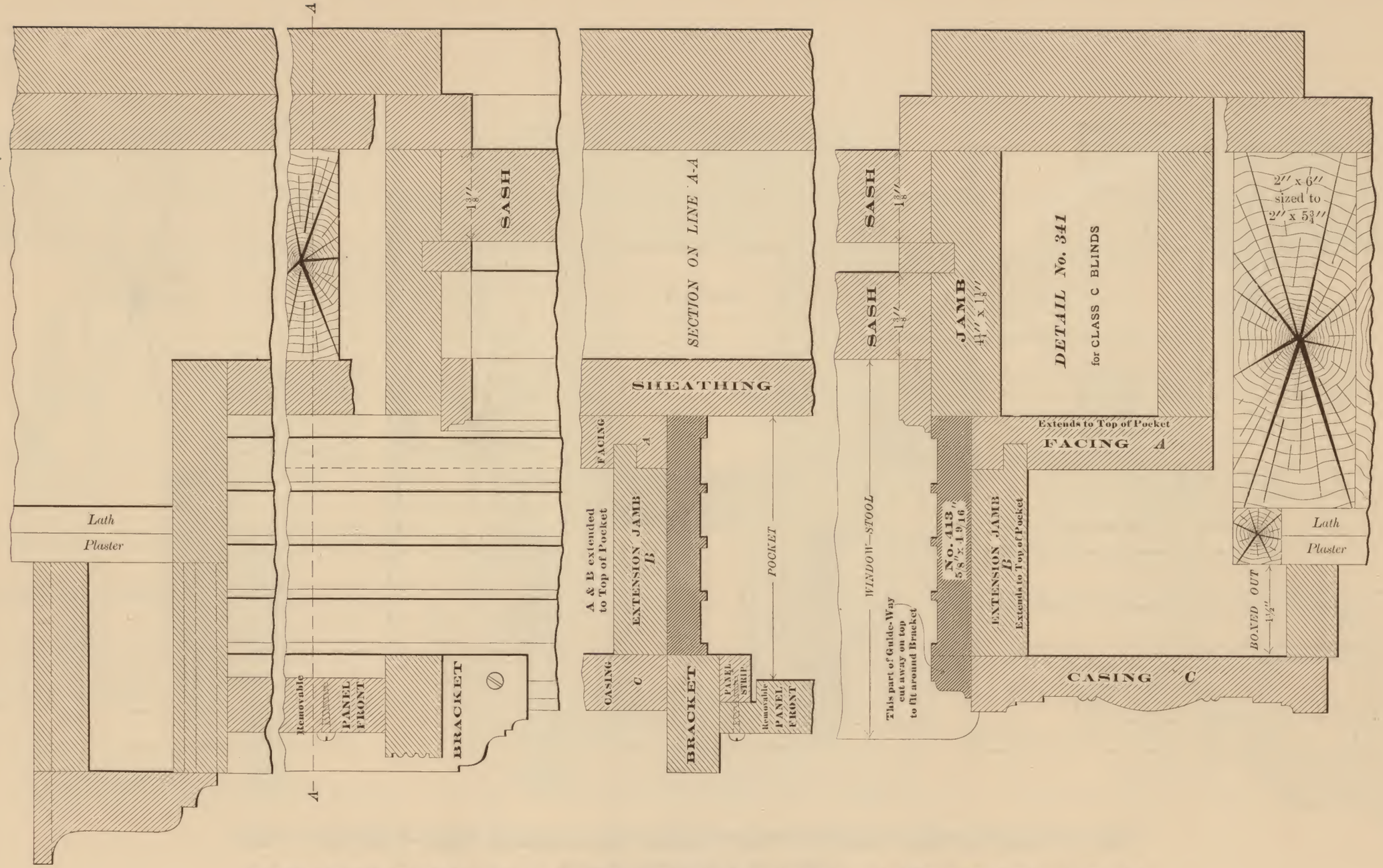
Half-Size Details of Window-Frames for Willer's Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3.

For Frame Buildings with 2 x 6 studding.



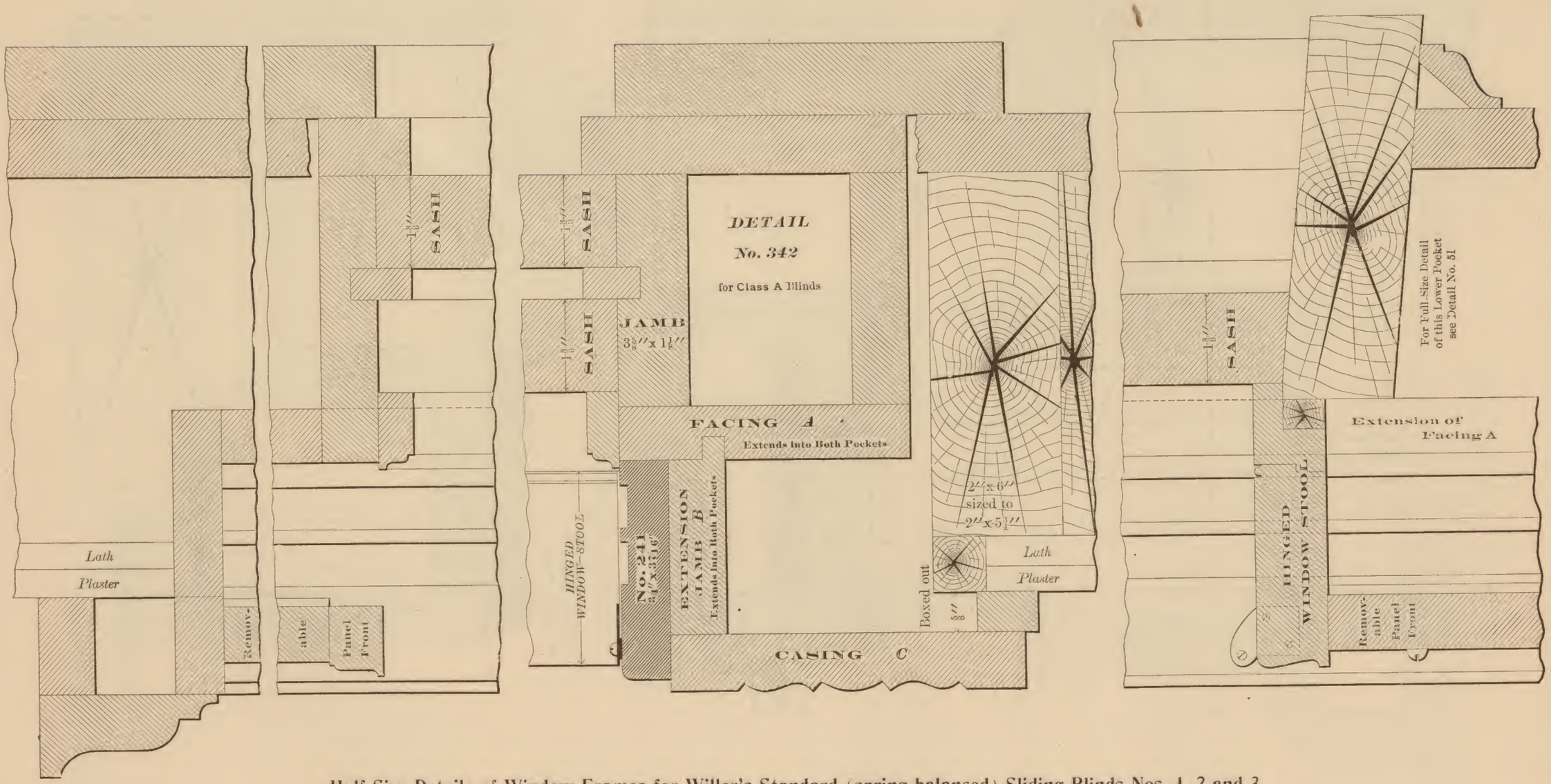
Half-Size Details of Window-Frames for Willer's Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3.

For Frame Buildings with 2 x 6 studding.



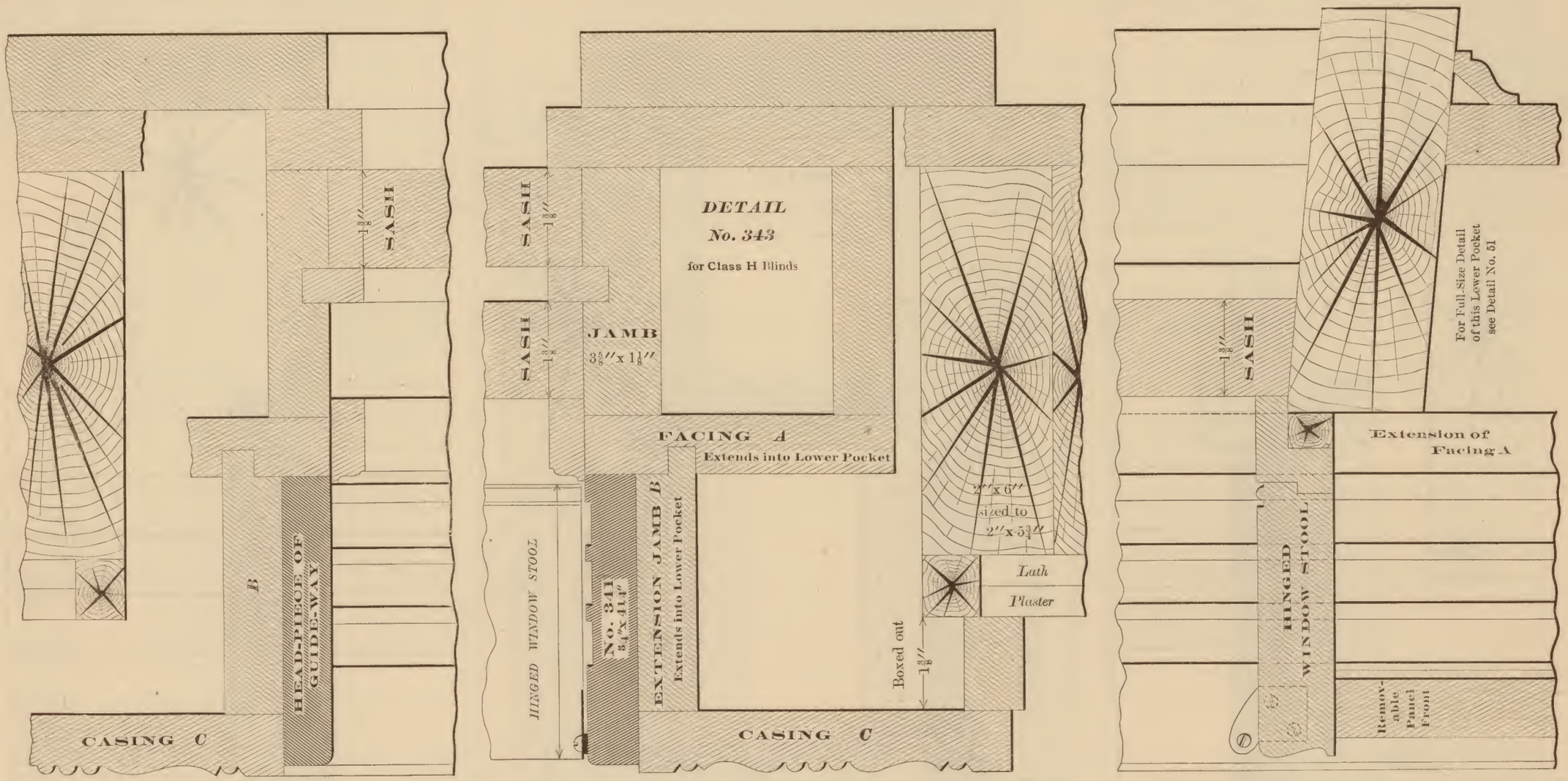
Half-Size Details of Window-Frames for Willer's Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3.

For Frame Buildings with 2 x 6 studding.



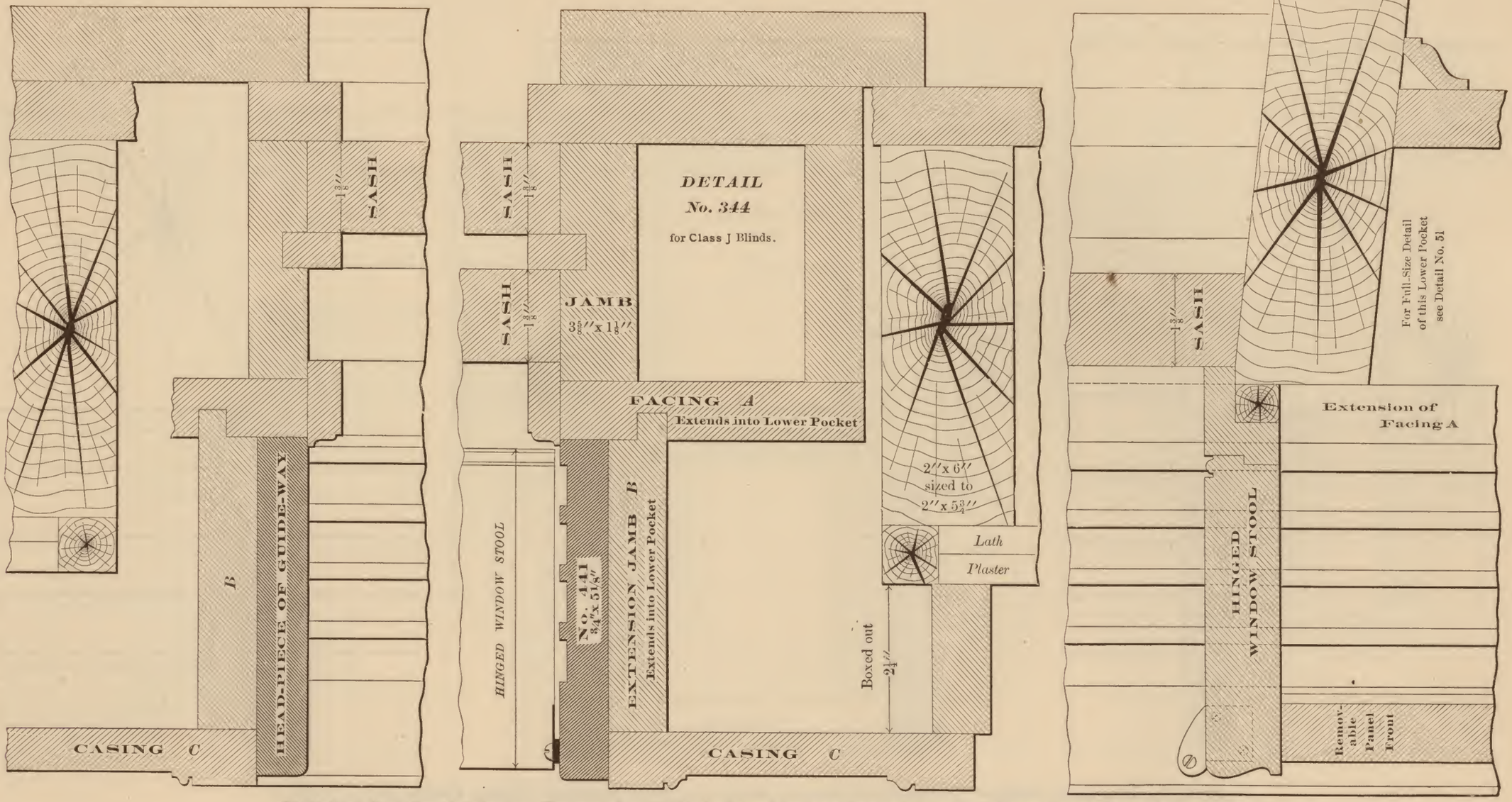
Half-Size Details of Window-Frames for Willer's Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3.

For Frame Buildings with 2 x 6 studding.



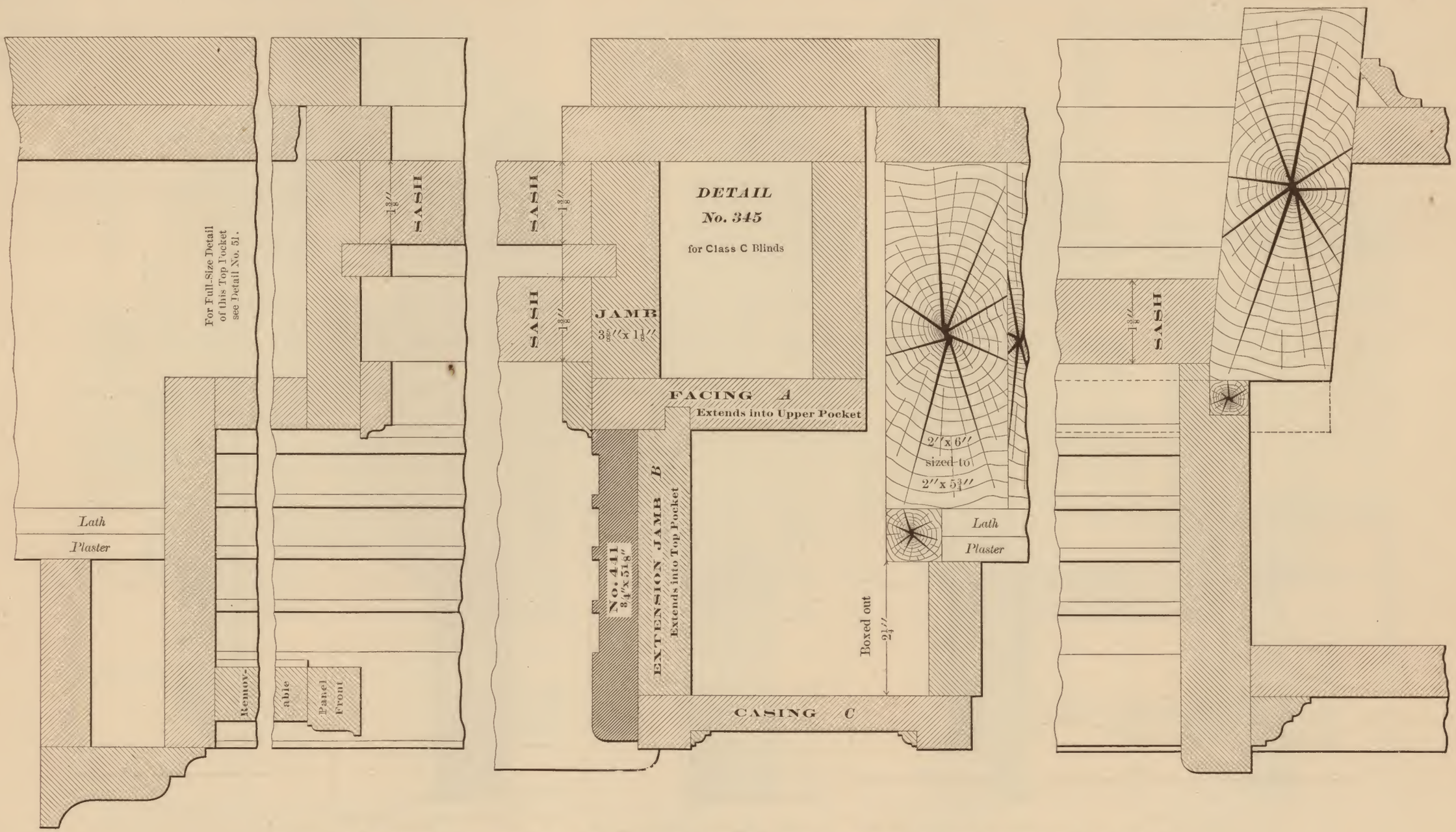
Half-Size Details of Window-Frames for Willer's Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3.

For Frame Buildings with 2 x 6 studding.



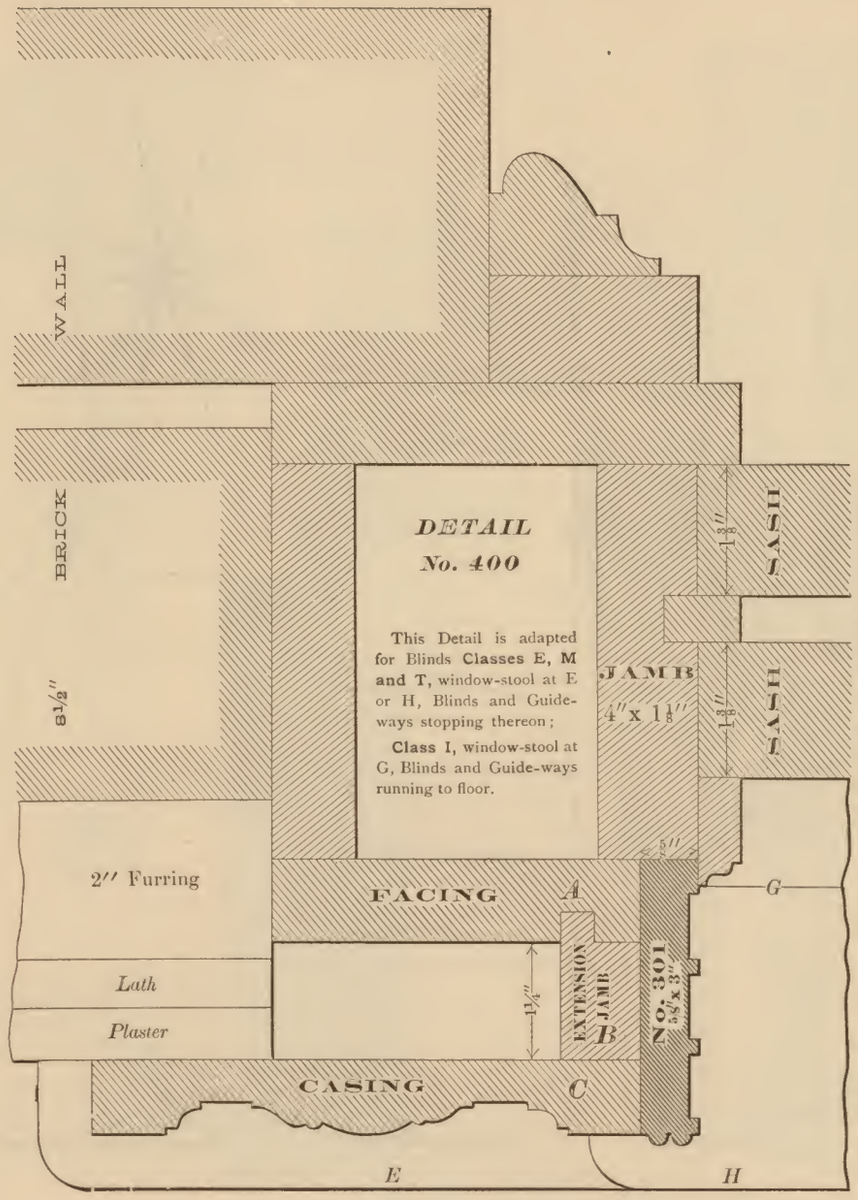
Half-Size Details of Window-Frames for Willer's Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3.

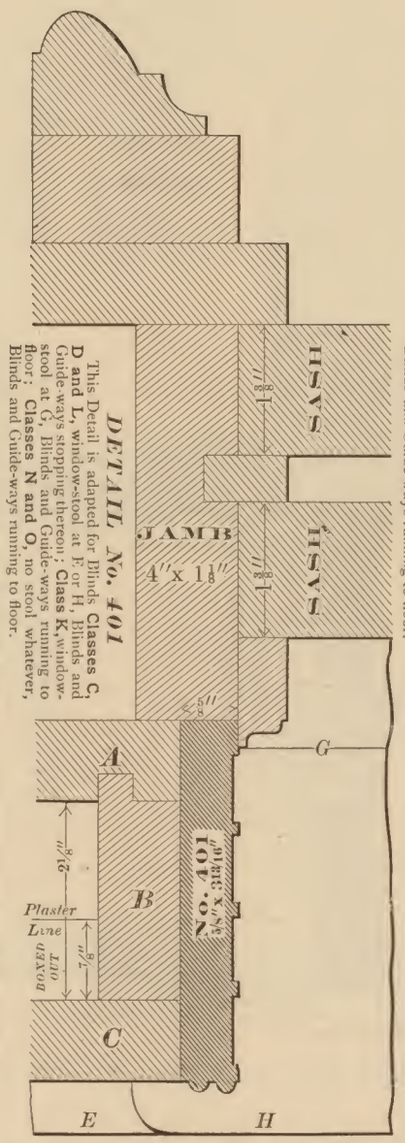
For Frame Buildings with 2 x 6 studding.

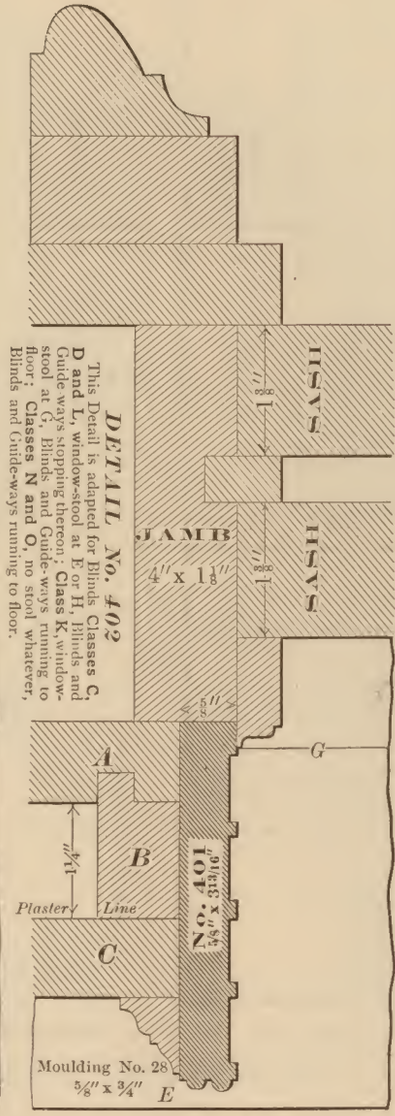


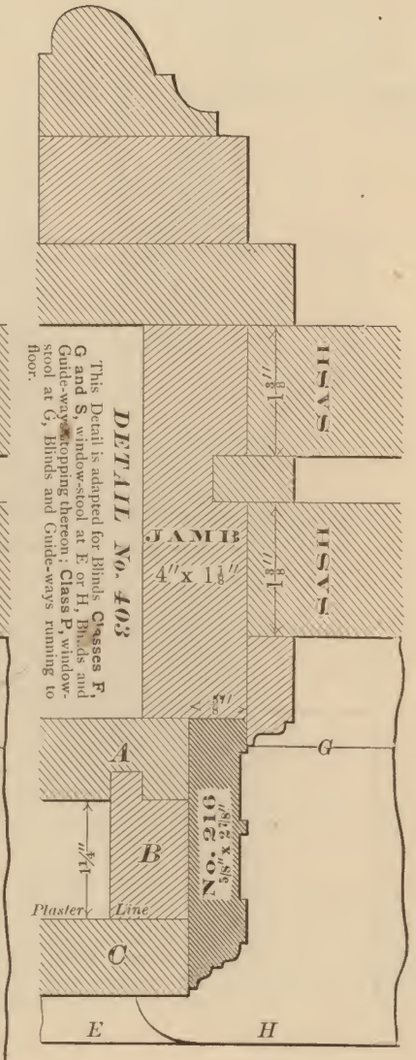
Half-Size Details of Window-Frames for Willer's Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3.

For Frame Buildings with 2 x 6 studding.



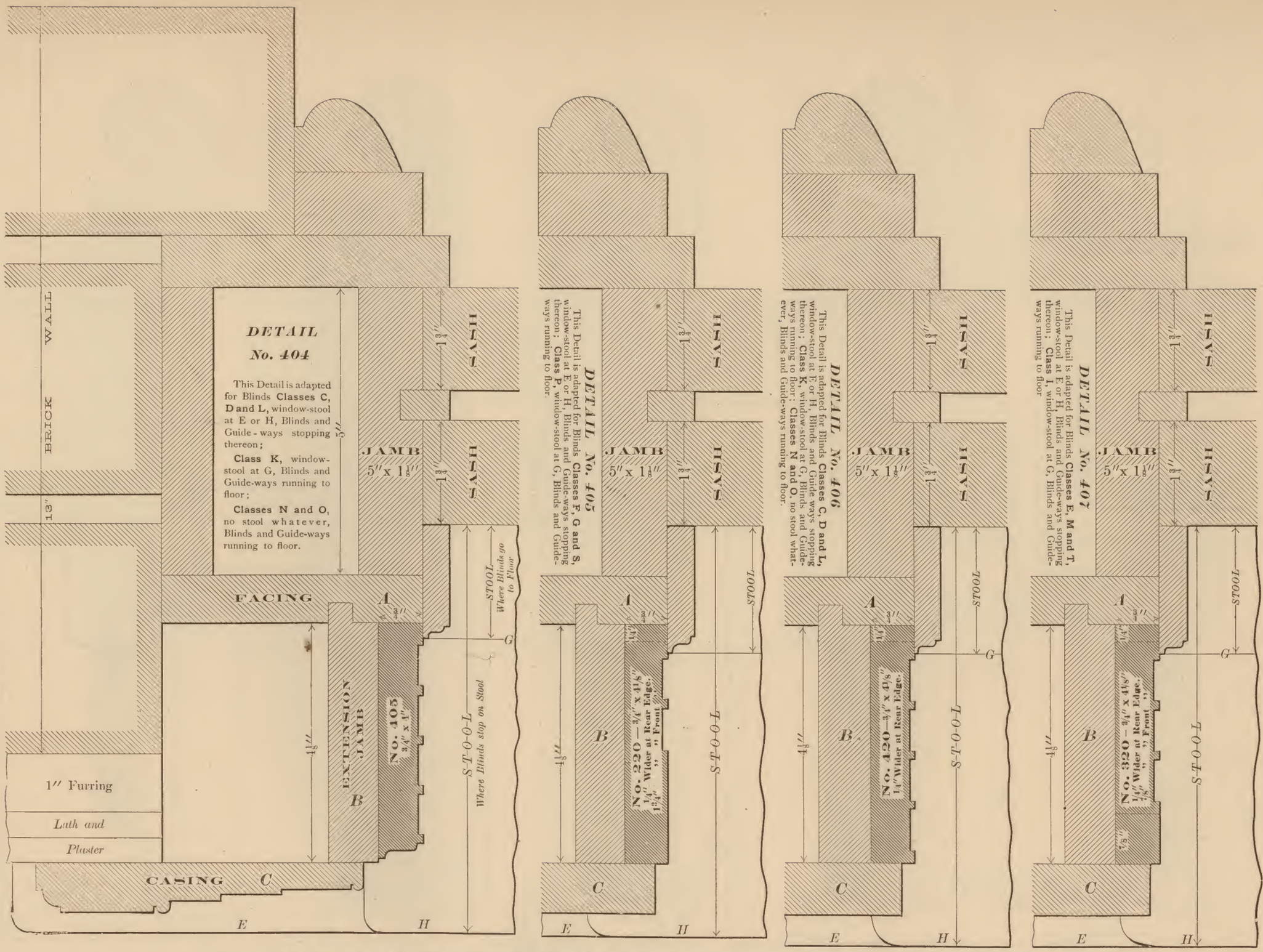






Half-Size Details of Window-Frames for Willer's Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3.

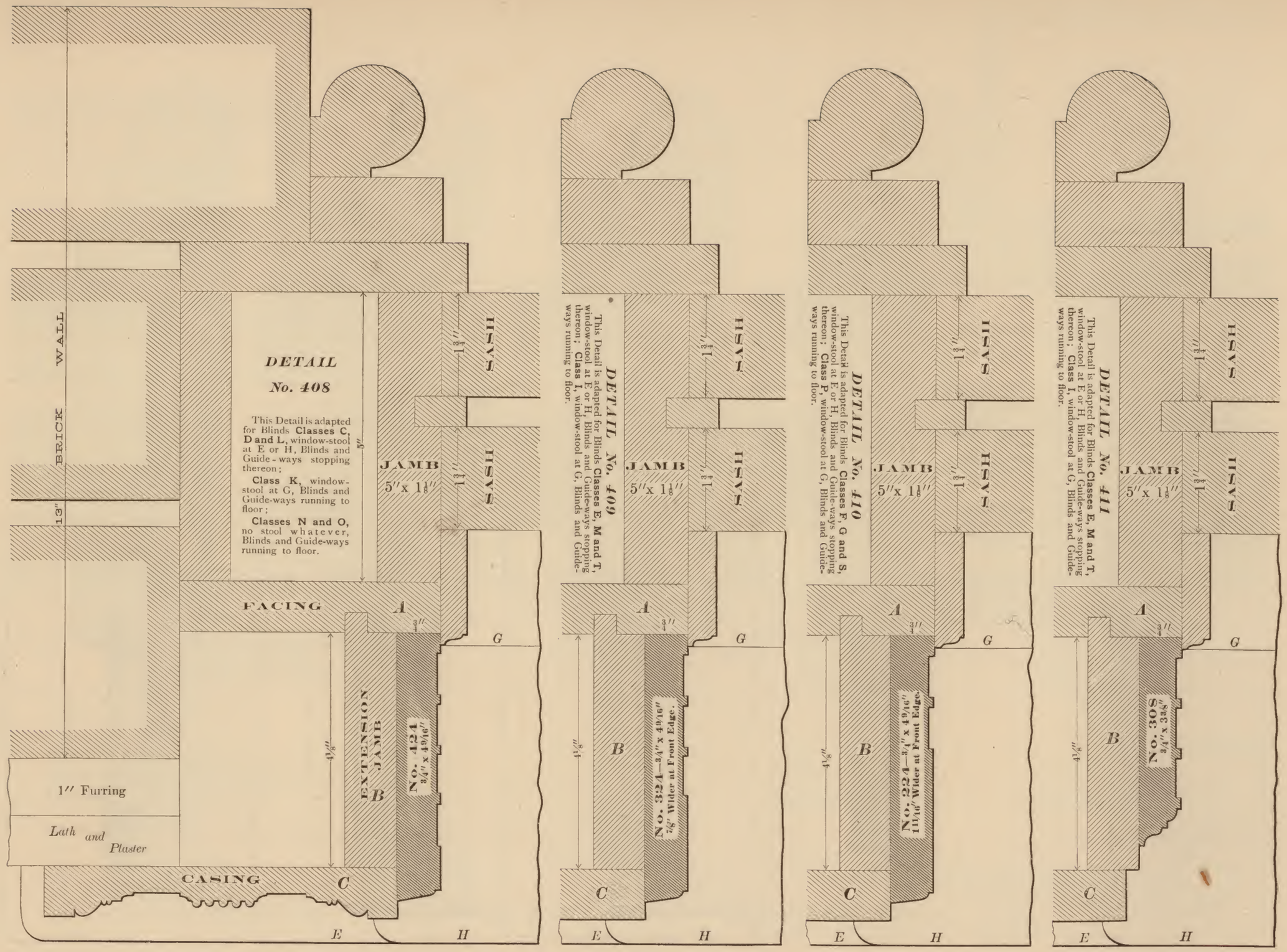
For 8½ inch thick Brick Walls.



Half-Size Details of Window-Frames for Willer's Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3.

For 13 inch thick Brick Walls.

The above are readily modified to suit stone and other walls of any thickness.



DETAIL No. 408

This Detail is adapted for Blinds **Classes C, D and L**, window-stool at E or H, Blinds and Guide-ways stopping thereon;

Class K, window-stool at G, Blinds and Guide-ways running to floor;

Classes N and O, no stool whatever, Blinds and Guide-ways running to floor.

DETAIL No. 409

This Detail is adapted for Blinds **Classes E, M and T**, window-stool at E or H, Blinds and Guide-ways stopping thereon; **Class I**, window-stool at G, Blinds and Guide-ways running to floor.

DETAIL No. 410

This Detail is adapted for Blinds **Classes F, G and S**, window-stool at E or H, Blinds and Guide-ways stopping thereon; **Class P**, window-stool at G, Blinds and Guide-ways running to floor.

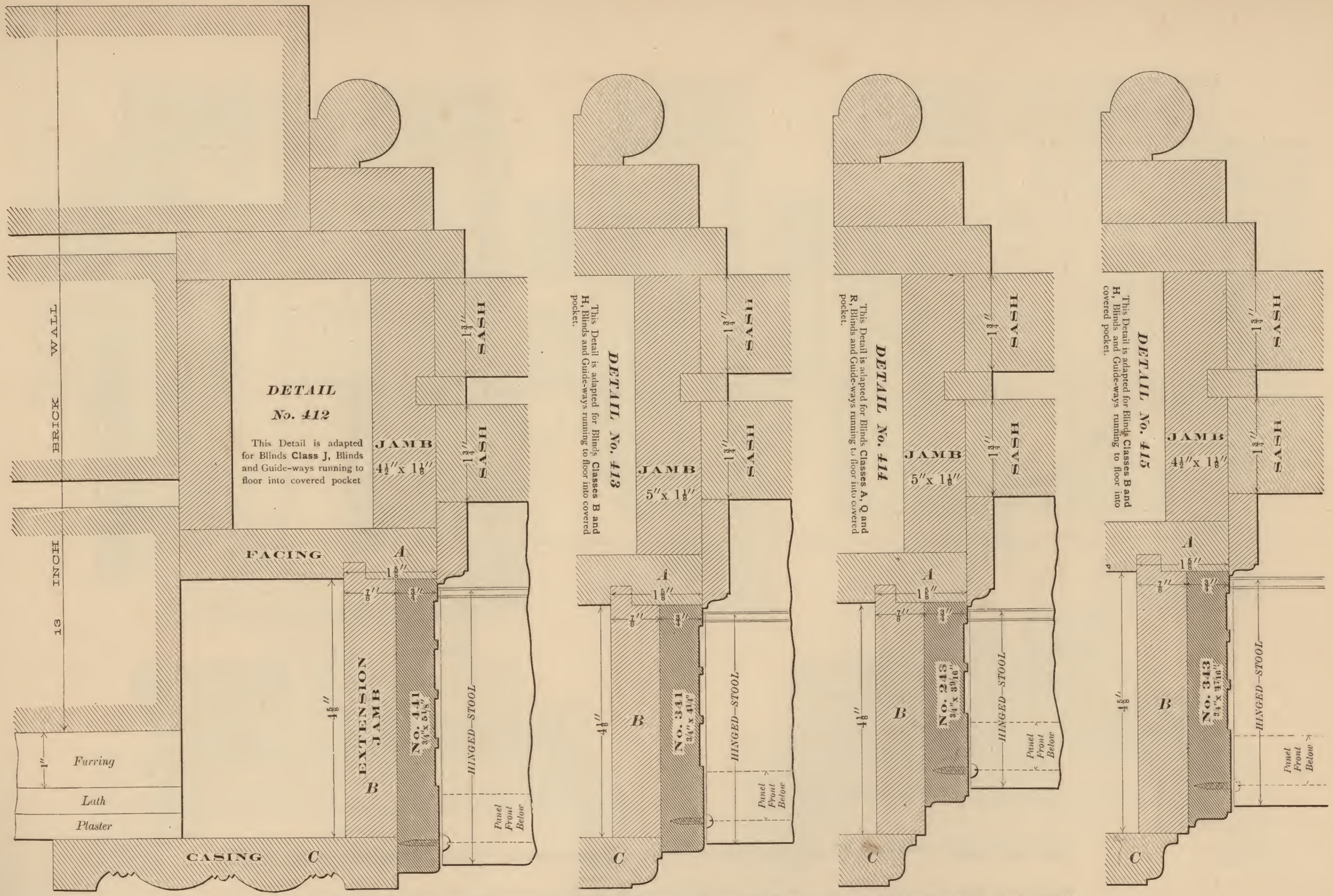
DETAIL No. 411

This Detail is adapted for Blinds **Classes E, M and T**, window-stool at E or H, Blinds and Guide-ways stopping thereon; **Class I**, window-stool at G, Blinds and Guide-ways running to floor.

Half-Size Details of Window-Frames for Willer's Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3.

For 13 inch thick Brick Walls.

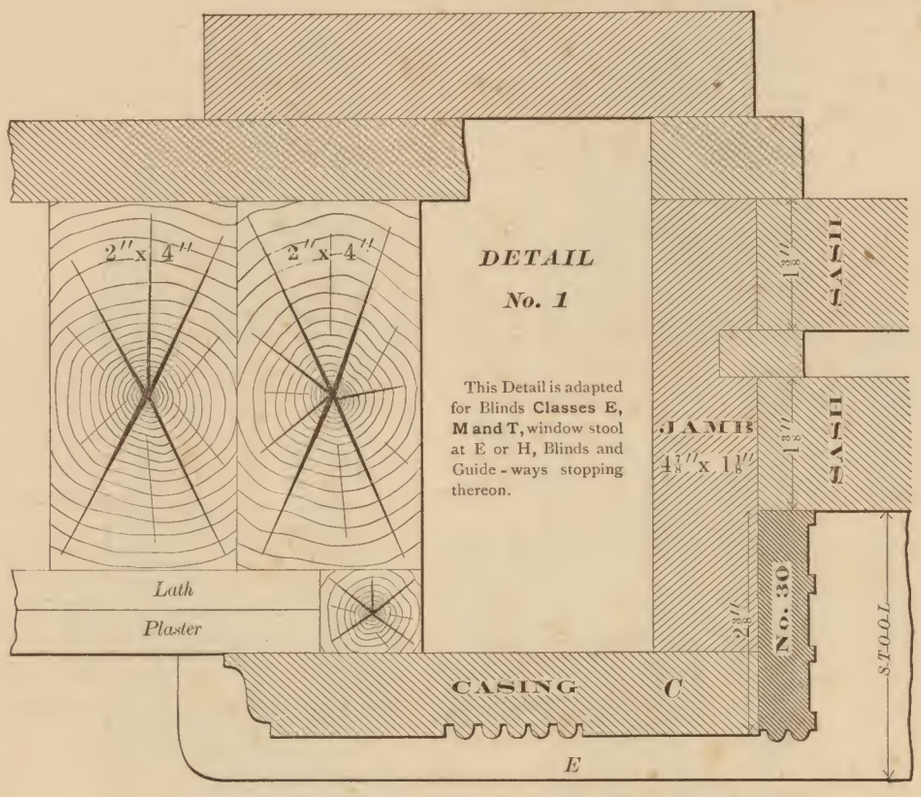
The above are readily modified to suit stone and other walls of any thickness.

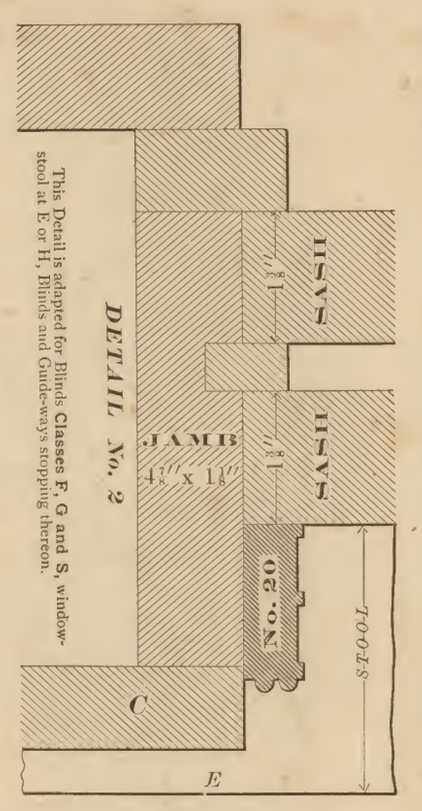


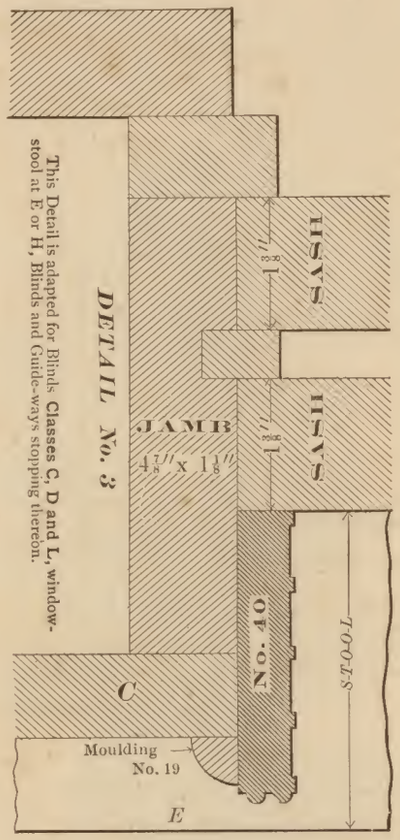
Half-Size Details of Window-Frames for Willer's Standard (spring-balanced) Sliding Blinds Nos. 1, 2 and 3.

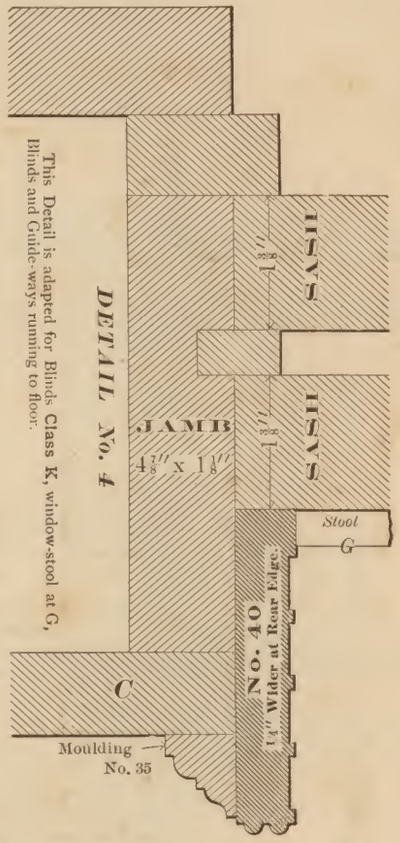
For 13 inch thick Brick Walls.

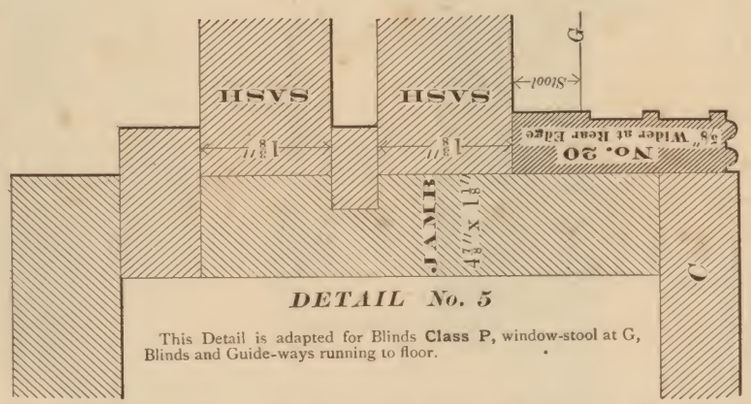
The above are readily modified to suit stone and other walls of any thickness.

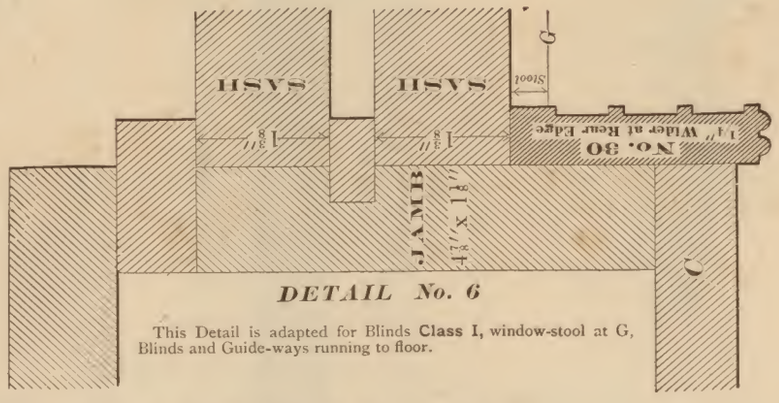






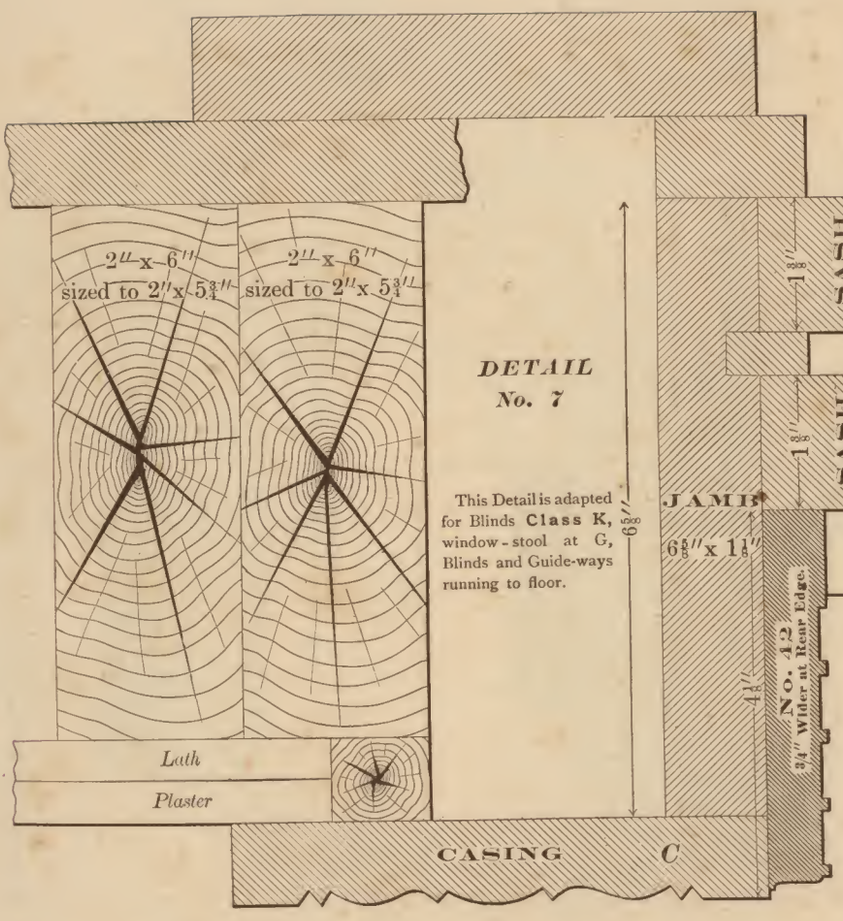






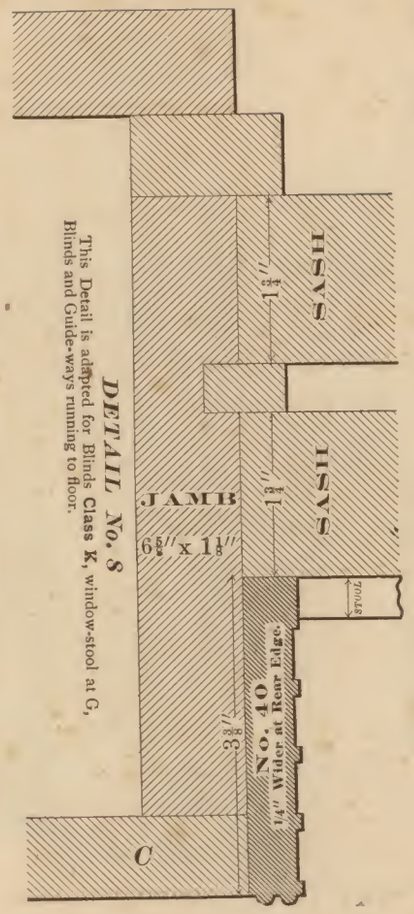
Half-Size Details of Window-Frames for Willer's Common (spring-balanced) Sliding Blinds Nos. 4 and 5.

For Frame Buildings with 2 x 4 studding.



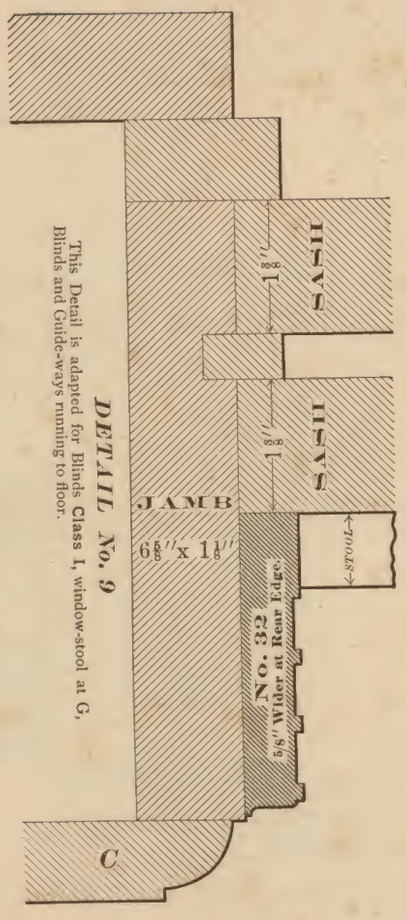
DETAIL No. 7

This Detail is adapted for Blinds **Class K,** window-stool at G, Blinds and Guide-ways running to floor.



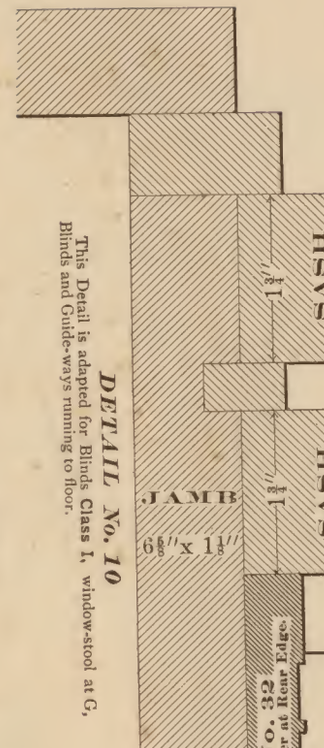
DETAIL No. 8

This Detail is adapted for Blinds **Class K,** window-stool at G, Blinds and Guide-ways running to floor.



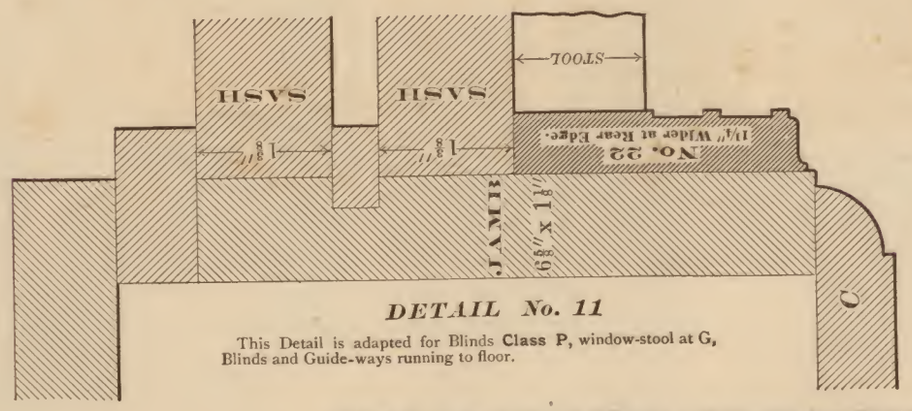
DETAIL No. 9

This Detail is adapted for Blinds **Class I,** window-stool at G, Blinds and Guide-ways running to floor.



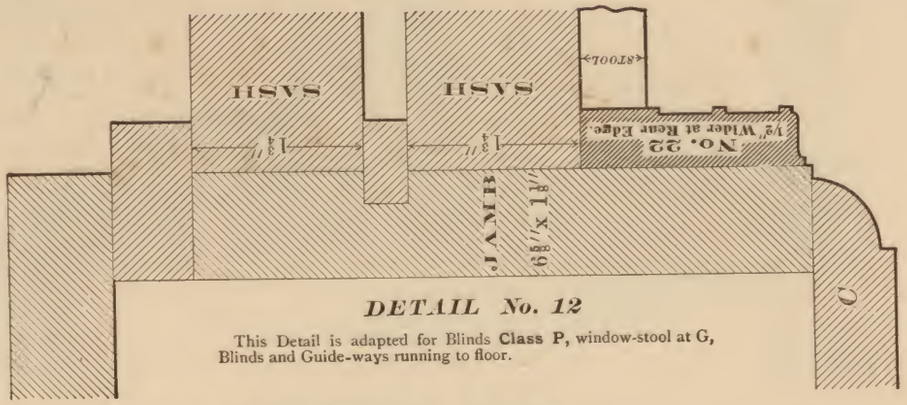
DETAIL No. 10

This Detail is adapted for Blinds **Class I,** window-stool at G, Blinds and Guide-ways running to floor.



DETAIL No. 11

This Detail is adapted for Blinds **Class P,** window-stool at G, Blinds and Guide-ways running to floor.

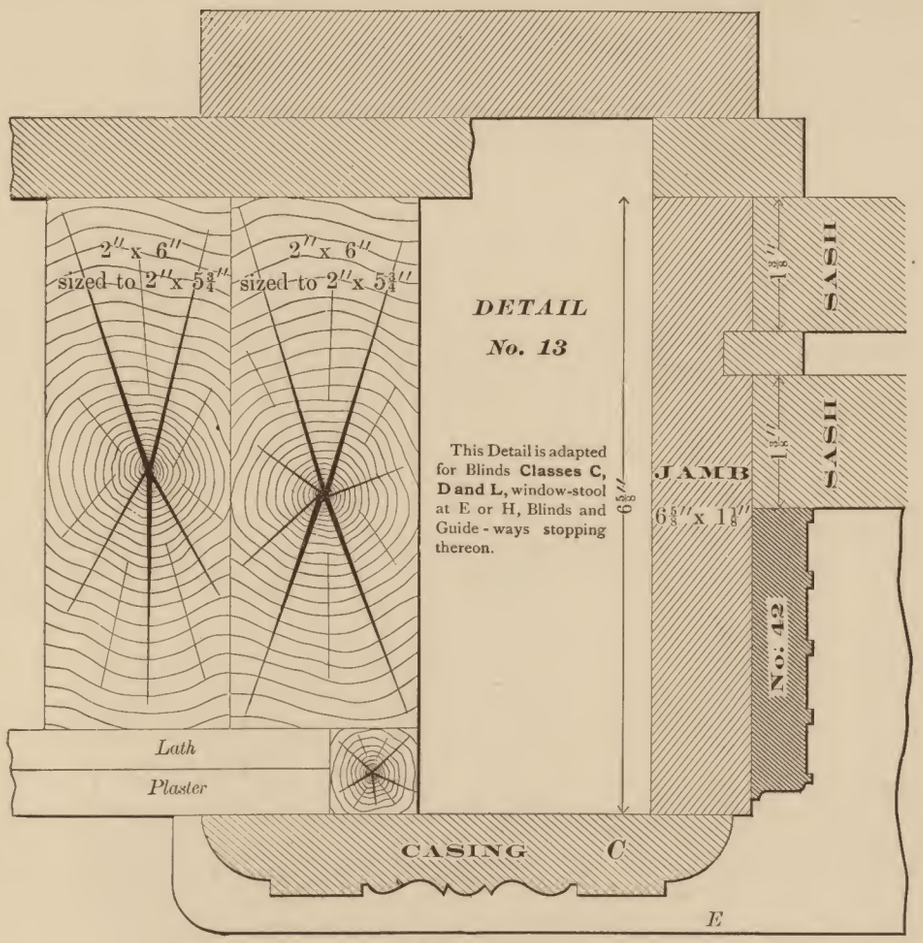


DETAIL No. 12

This Detail is adapted for Blinds **Class P,** window-stool at G, Blinds and Guide-ways running to floor.

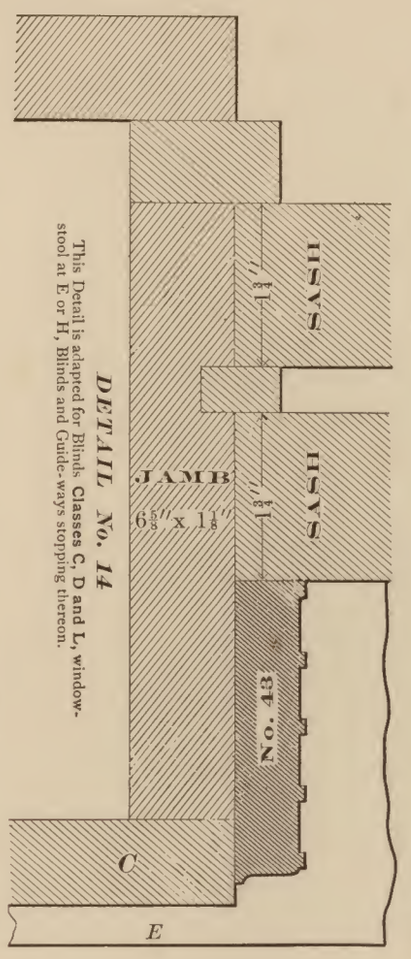
Half-Size Details of Window-Frames for Willer's Common (spring-balanced) Sliding Blinds Nos. 4 and 5.

For Frame Buildings with 2 x 6 studding.



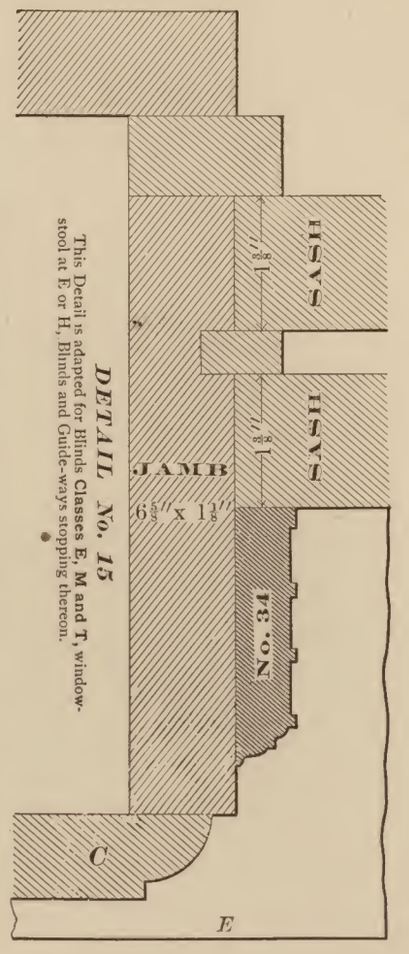
DETAIL
No. 13

This Detail is adapted for Blinds **Classes C, D and L,** window-stool at E or H, Blinds and Guide-ways stopping thereon.



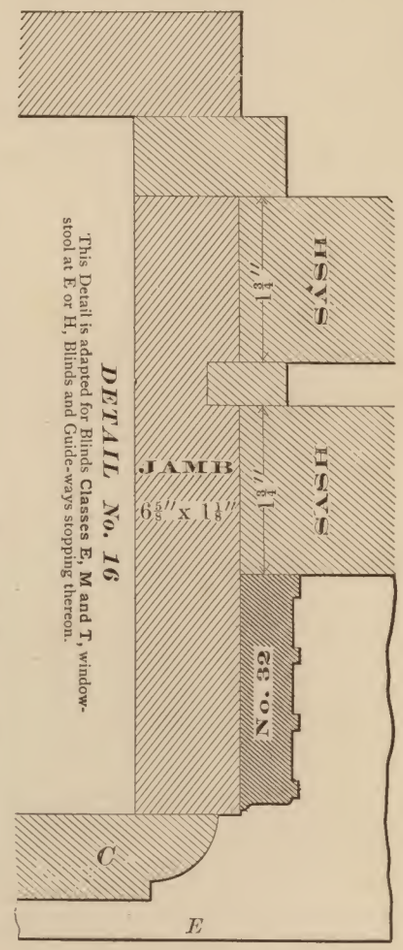
DETAIL No. 14

This Detail is adapted for Blinds **Classes C, D and L,** window-stool at E or H, Blinds and Guide-ways stopping thereon.



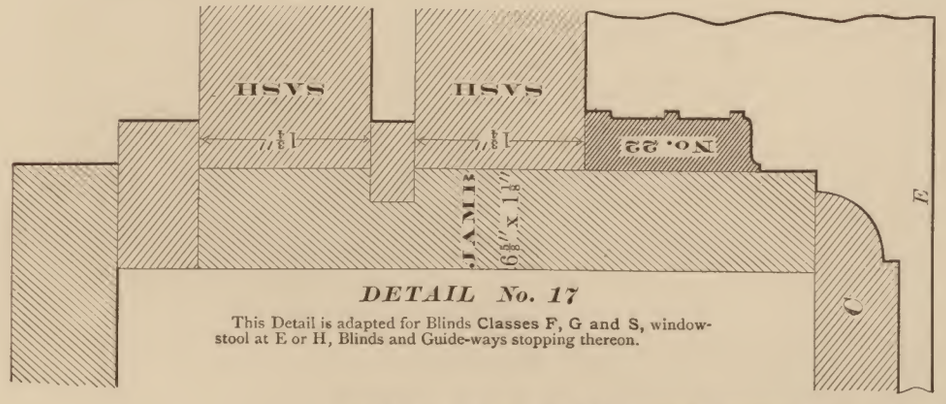
DETAIL No. 15

This Detail is adapted for Blinds **Classes E, M and T,** window-stool at E or H, Blinds and Guide-ways stopping thereon.



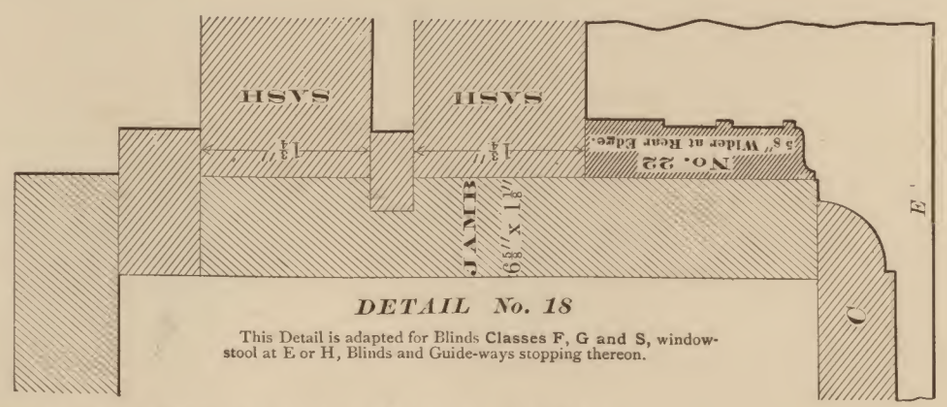
DETAIL No. 16

This Detail is adapted for Blinds **Classes E, M and T,** window-stool at E or H, Blinds and Guide-ways stopping thereon.



DETAIL No. 17

This Detail is adapted for Blinds **Classes F, G and S,** window-stool at E or H, Blinds and Guide-ways stopping thereon.

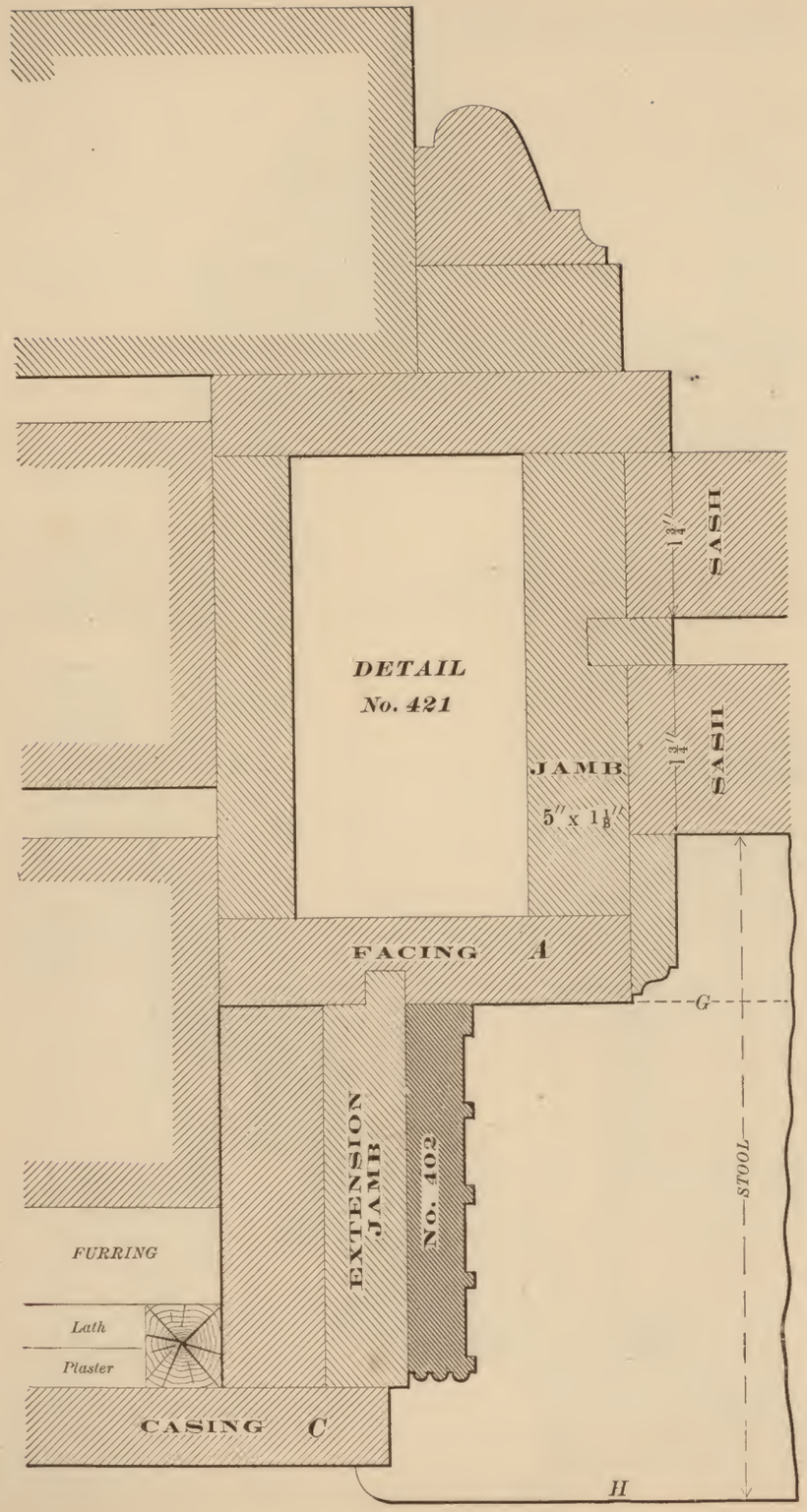


DETAIL No. 18

This Detail is adapted for Blinds **Classes F, G and S,** window-stool at E or H, Blinds and Guide-ways stopping thereon.

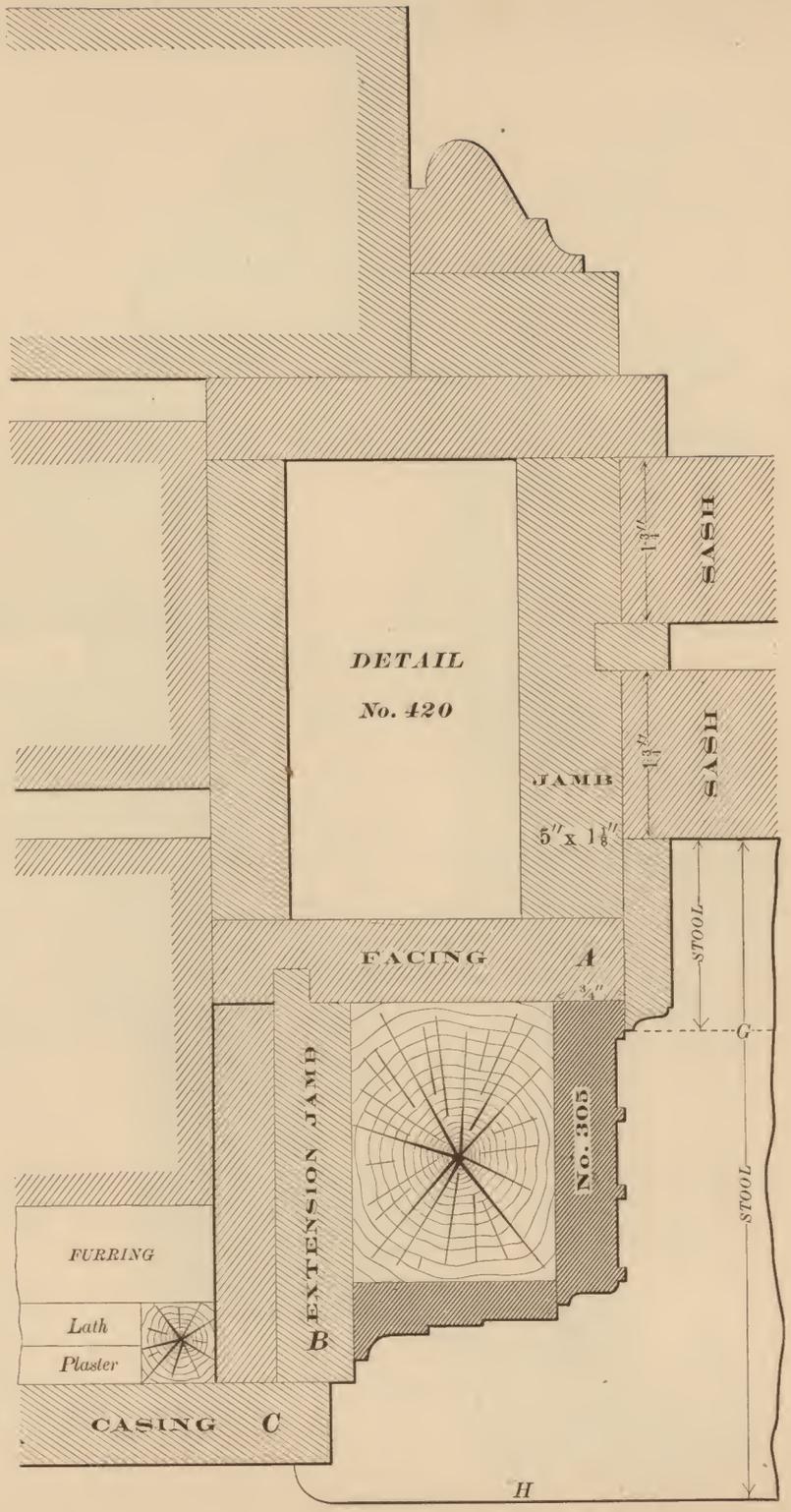
Half-Size Details of Window-Frames for Willer's Common (spring-balanced) Sliding Blinds Nos. 4 and 5.

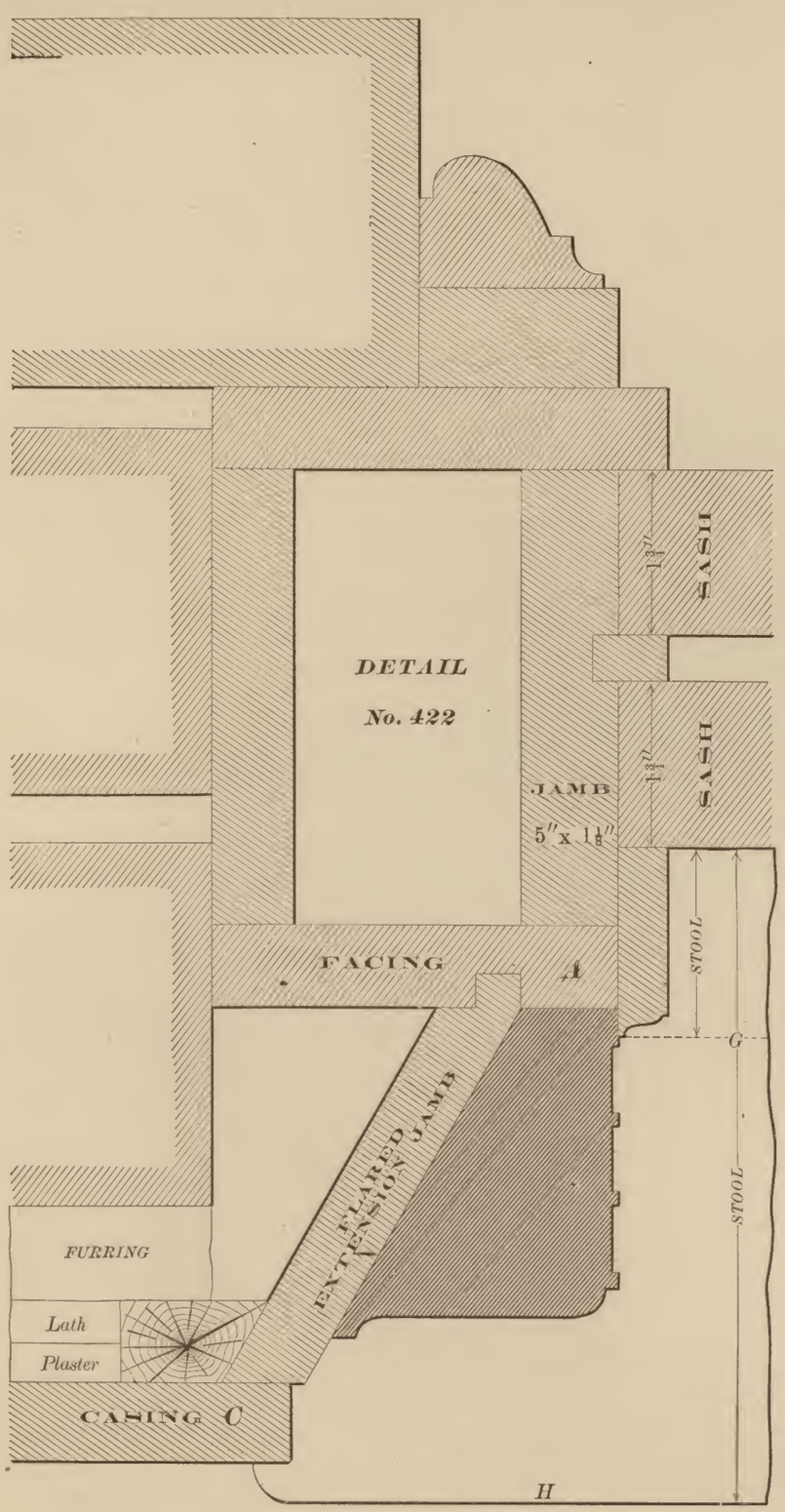
For Frame Buildings with 2 x 6 studding.



Window-Frames with Recessed Jambs.

Where the adoption of our Standard Sliding Blinds is a predetermined affair, the window-frame should be so arranged that the extension jamb does not set back further from the window-jamb proper than the thickness of the Guide-ways to be used. Very often, however, our Blinds are put into buildings where frames have extension jambs set back 2 or 3 inches. In such cases, the Guide-ways can be placed directly on the extension jamb, as shown by Detail No. 421; it is preferable, however, in such cases, and will add to the appearance of the Blinds, especially from the outside, if the window frames are arranged as shown by Detail No. 420. We furnish only the Guide-ways proper without charge, but will furnish the whole arrangement complete, if so specially ordered. In all such special cases, send us full-size drawings of the parts referred to.





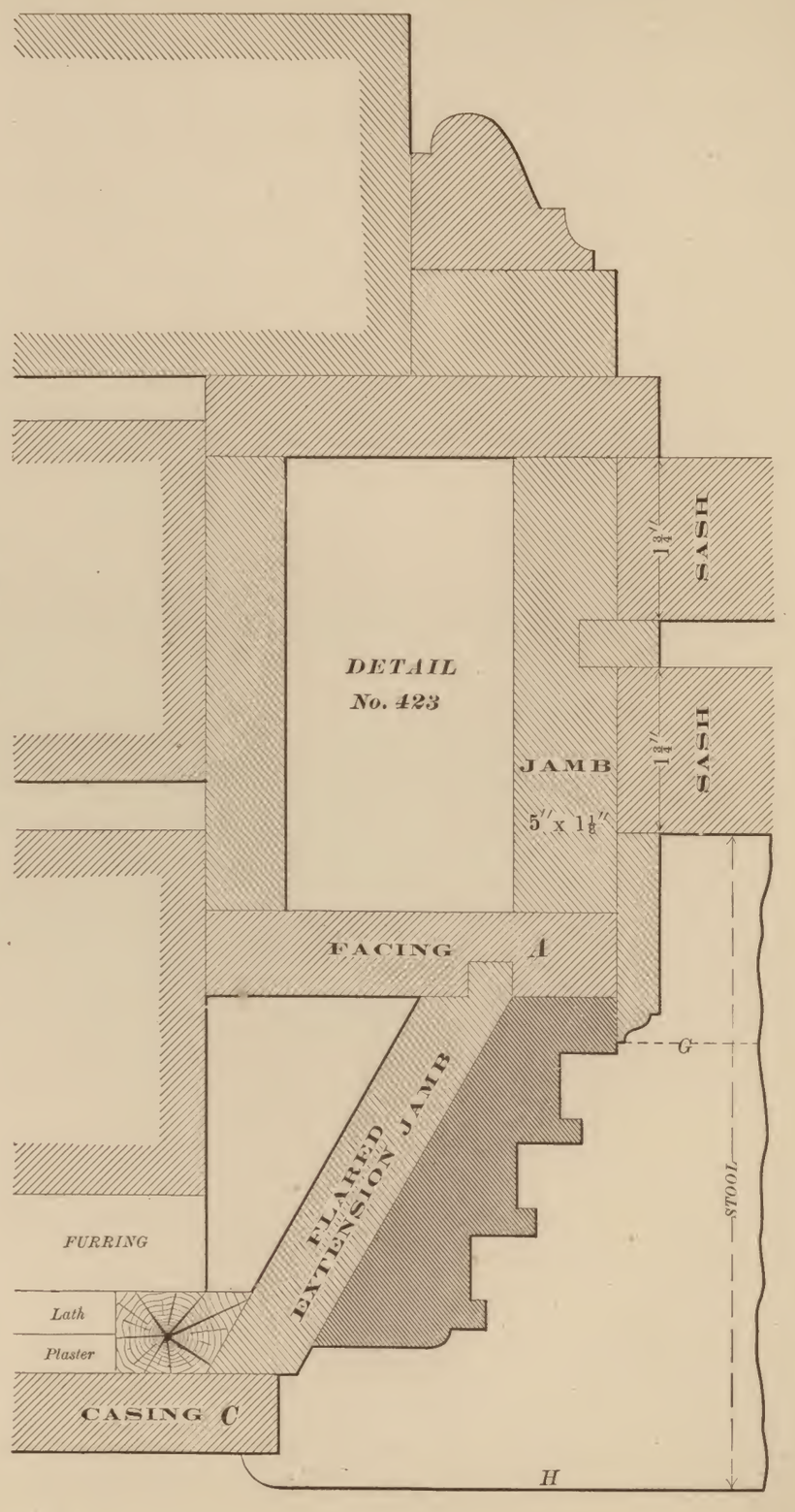
Window-Frames with Flared Jambs.

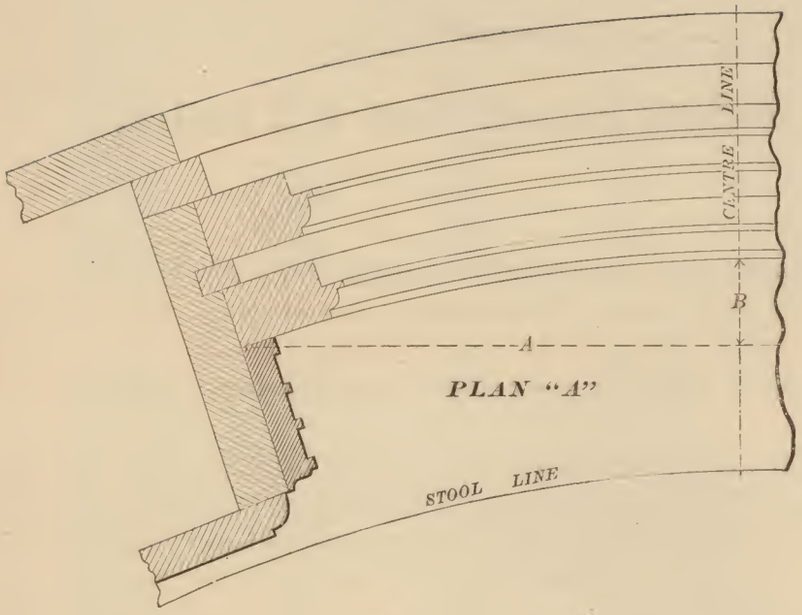
We have filled a number of orders for our Standard Sliding Blinds, where the window-frames were provided with flared jambs, or jambs set on a bevel; hence we publish herewith two Details, showing how the frames can be best arranged in such cases.

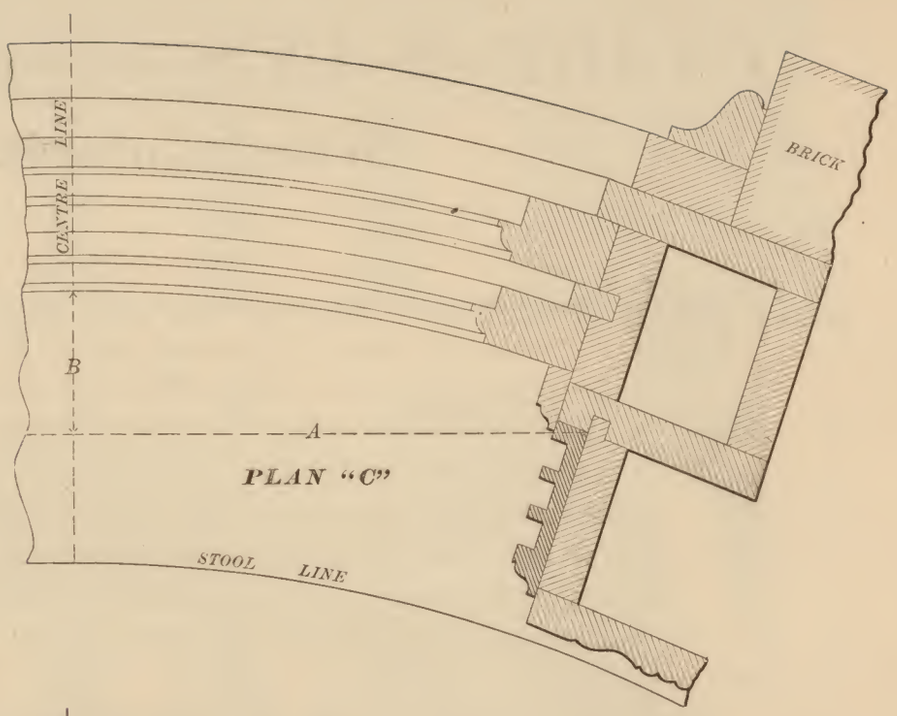
If arranged according to Detail No. 422, the different sections of a Blind are all of one width, whereas if Detail No. 423 is used, the different sections will vary in width.

In all such special cases, send us full-size drawing of the parts referred to, and state which arrangement is preferred.

An extra charge will be made for Guide-ways made in this manner.



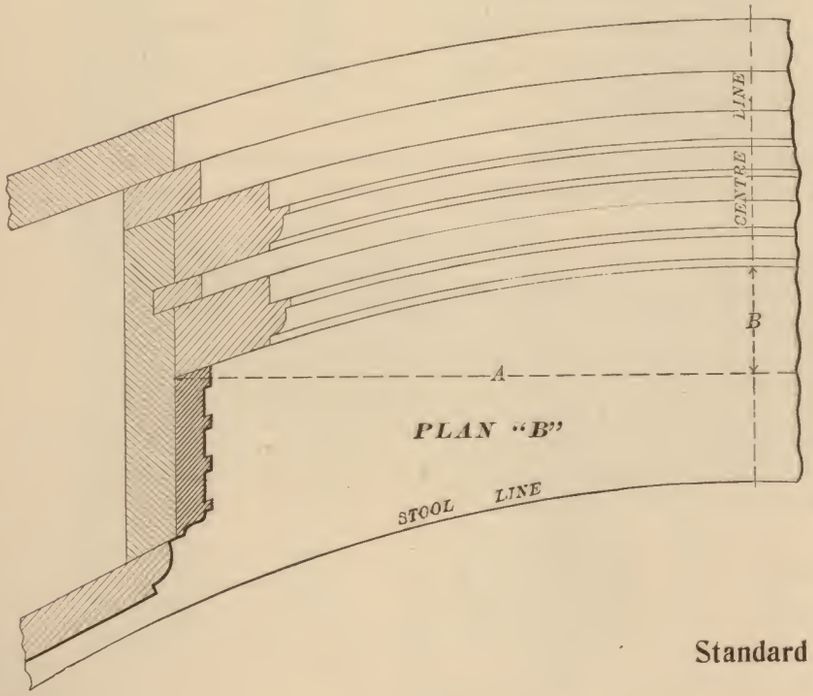


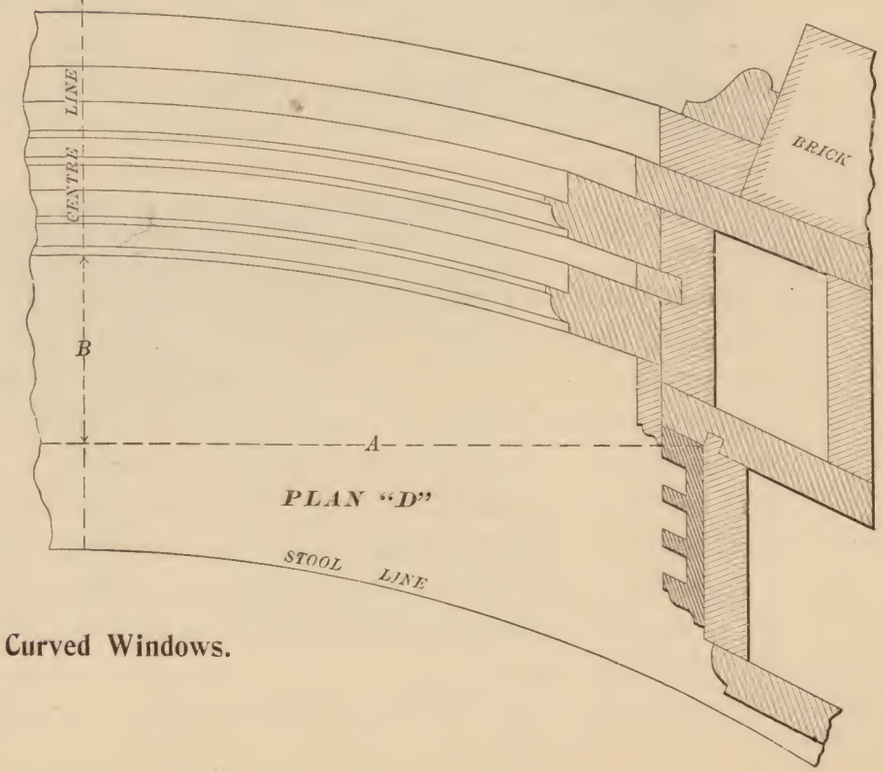


Plans A and B show the Guide-way placed on the jamb, and plans C and D show the Guide-way set back from the jamb. In plans A and C, the jambs are set on a line with the radius of the circle, and the different blind sections in this case vary in width. In plans B and D, the jambs are set so as to be equally apart at all points, making the different blind sections all of one width. In all such cases we must be furnished with full-size drawings, giving exact curve and radius. Where this is practically impossible, give exact width of window between arrow points on line A, and the exact spring or sweep between arrow points on line **B.**

Curved Blinds will not operate satisfactorily in windows where the curve is too great or the radius too short, in fact we do not guarantee them to operate **perfectly** in any case. Curved Blinds, to retain their original shape, should be provided with metal bronze plates, secured to the top and bottom of each section the entire width of blind. Extra cost of such supplied upon application.

For Curved Blinds, the space between the grooves in the Guide-ways must be made wider than usual, at least three-eighths of an inch wide, to off-set any small irregularities that cannot sometimes be avoided in the shape or curve of the blind sections.





Standard (spring-balanced) Sliding Blinds for Curved Windows.

Scale, one-quarter full size.

GUIDE-WAYS (ALSO CALLED SLIDE-STRIPS AND RUN-WAYS) FOR

Willer's Columbian (weight-balanced) Sliding Blinds Nos. 1, 2 and 3.

CONSIDERING the fact that these blinds are used only in the better class of buildings, the sections of Guide-ways published herewith have all been designed with a view of making them strong, durable and neat in appearance and worthy of their being used in the best finished residences. The boxed Guide-ways are not cheaply sawn out of a solid block of timber, which will soon warp and twist all out of shape, causing an endless amount of annoyance, but they are made out of pieces, straightened, tongued, grooved and strongly glued and put together, so as to always retain their shape and allow the compressed lead-weights to freely move up and down in their respective grooves.

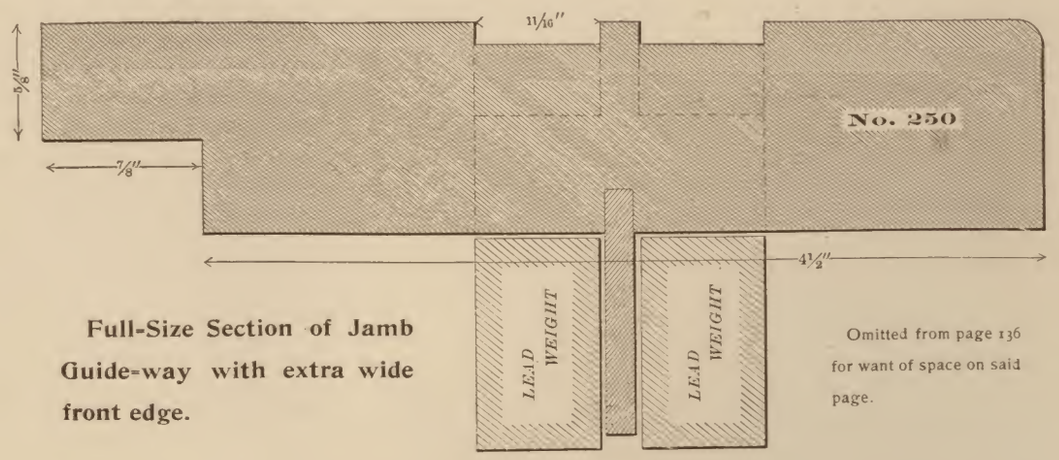
Regular Boxed Guide-ways, page 135:—We term these Regular for the reason that they are more used than others and are adaptable to most of the different Classes of Blinds, especially those not provided with pockets, and those where blinds run down to floor, without pockets. The proper use of these Guide-ways is illustrated by details of window-frames, Nos. 1012, 1013, 1014, 1024, 1025 and 1026. We furnish no head-pieces with these, the two side-pieces butting against the top-jamb.

Boxed Guide-ways with extra wide front edges, page 135:—These are especially designed for use in Classes of Blinds requiring a lower pocket and which pocket is to be covered by our Hinged Window-stool. The front edge is extra wide to provide sufficient room for the fitting of the panelling between the face-surfaces of the Guide-ways, affording easy means for the removal of the panelling at any time. We furnish no head-pieces with these, the two side-pieces butting against the top-jamb. The proper use of these Guide-ways is further illustrated by Plan D, Willer's Systems of Removable Panels; by full-size detail No. 51, and by half-size details of window-frames Nos. 1015, 1016, 1017, 1027, 1028 and 1029.

Grooved Jamb Guide-ways, pages 136 and 137:—These take the place of the Regular Extension Jambs. With these we furnish the two grooved side-pieces and an ungrooved head-piece. Those with square front edges are adaptable to most of the different Classes of Blinds, as shown by details of window-frames Nos. 1000 to 1008, and Nos. 1018 to 1020.

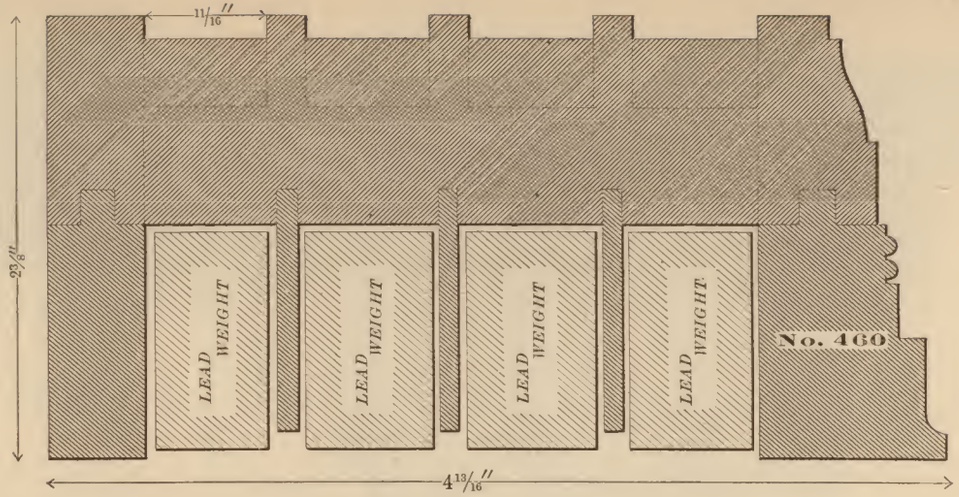
Those with rounded-off, uniformly wide front edges, Nos. 250, 253, 353 and 453, are especially adapted to Classes of Blinds requiring a lower pocket provided with our Hinged Window-stool, as shown in Plan D, Willer's Systems of Removable Panels; full-size detail No. 51, and details of window-frames, Nos. 1009, 1010, 1011, 1021, 1022 and 1023. The full-size sections of Jamb Guide-ways are drawn of a size to correspond with those shown in the half-size details of window-frames; we, however, furnish them of any size and of the exact width required to suit the construction of window, reserving the privilege of making an extra charge where they overrun in size the largest Guide-way published herein.

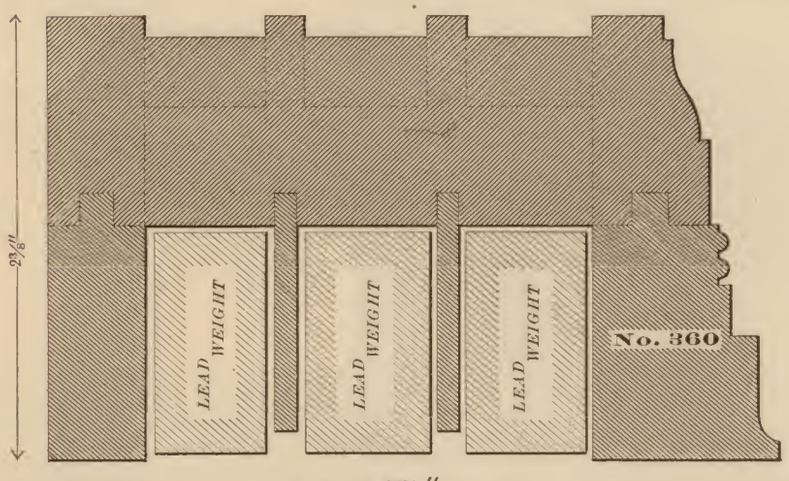
All the above Guide-ways are provided with a covered opening in the face of Guide-ways, which covering can easily be removed to give access to the weights.

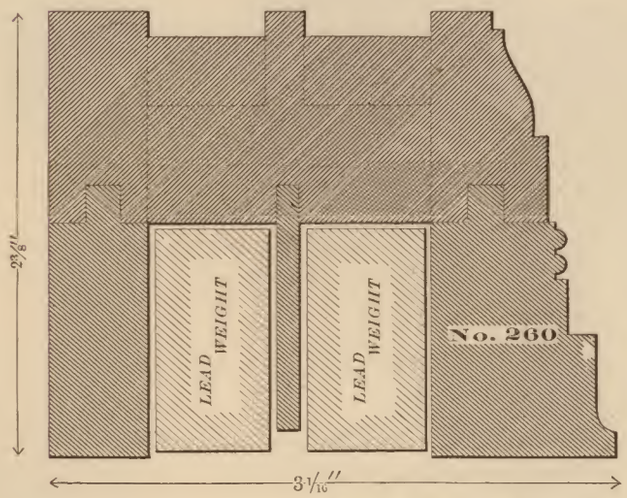


Full-Size Section of Jamb Guide-way with extra wide front edge.

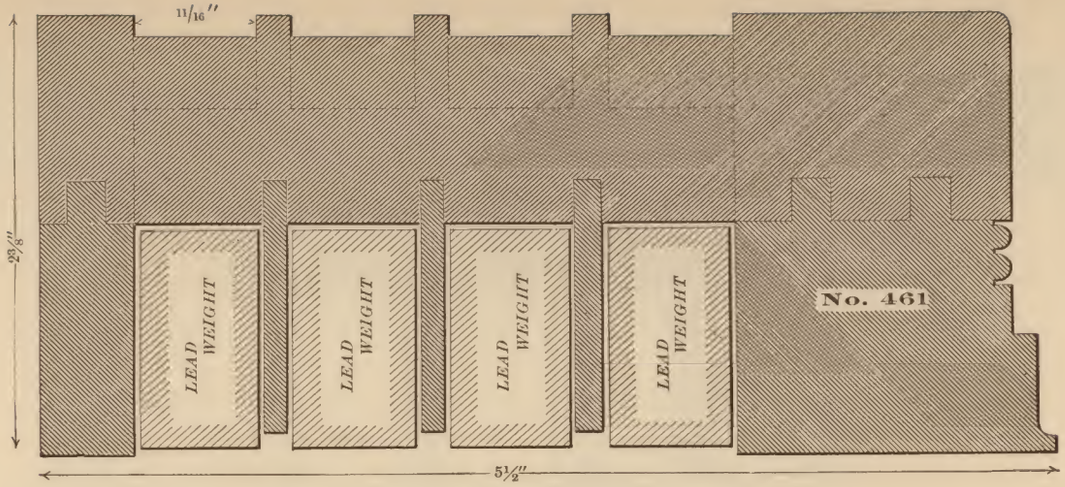
Omitted from page 136 for want of space on said page.

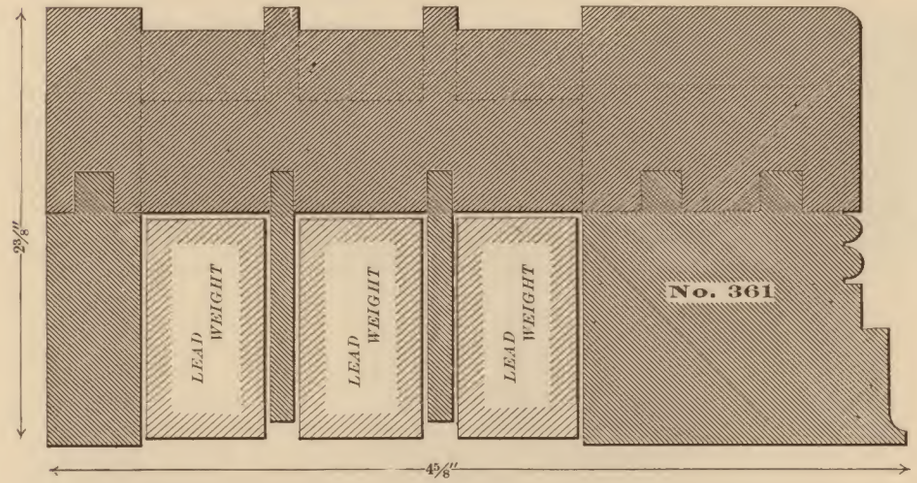


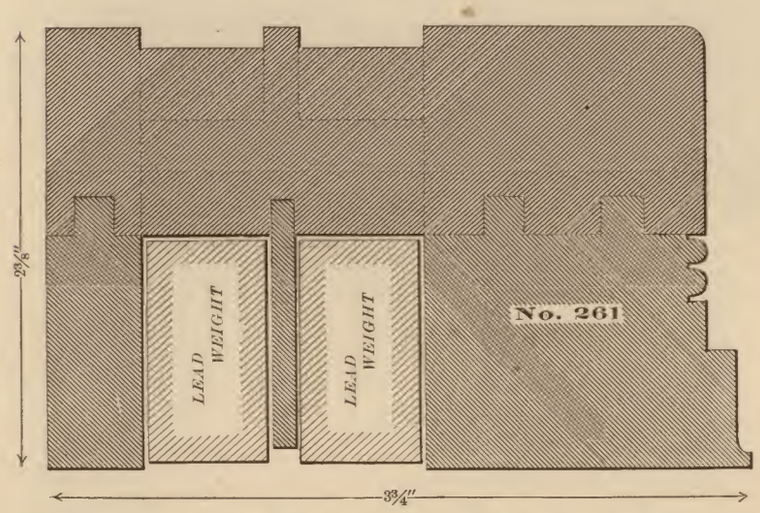




Regular Boxed Guide-ways.

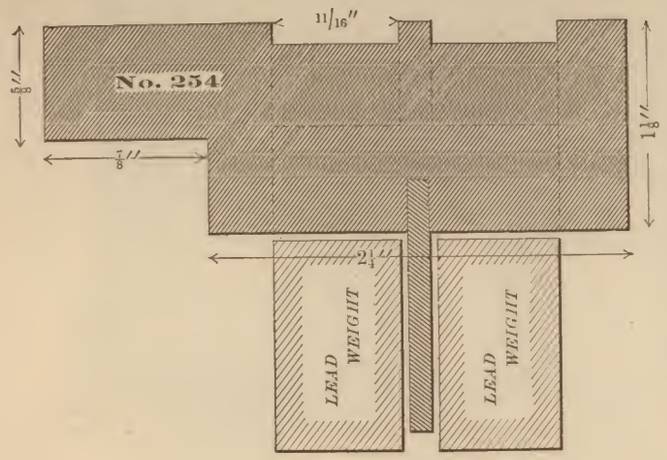


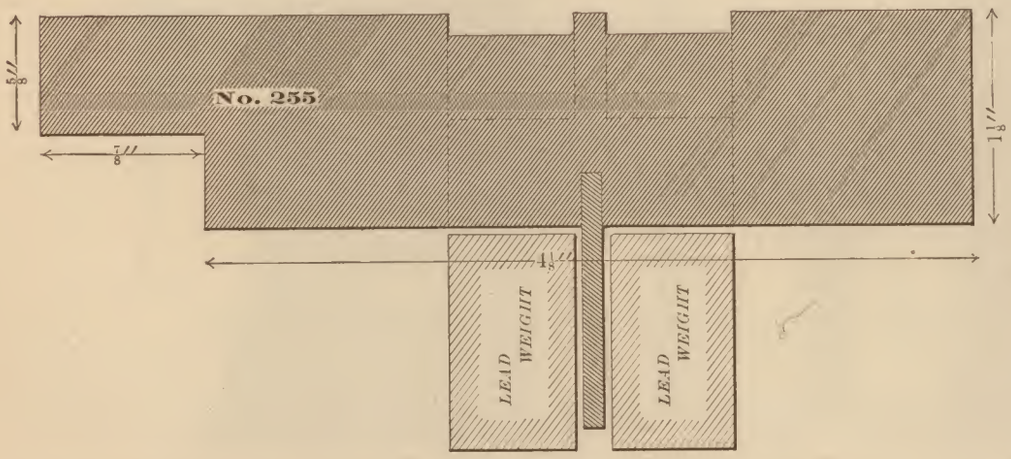


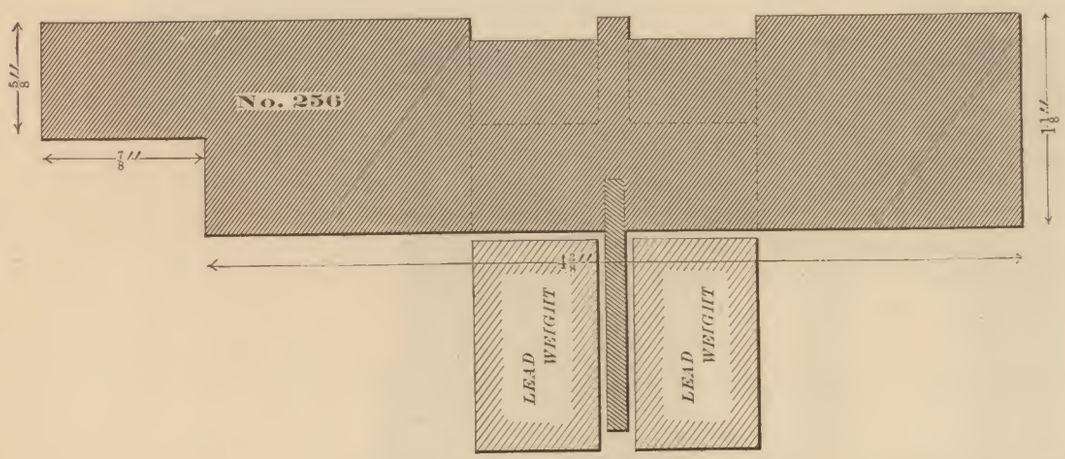


Boxed Guide-ways with extra wide front edges, especially adapted for Classes of Blinds requiring lower pockets provided with our Hinged Window-stool.

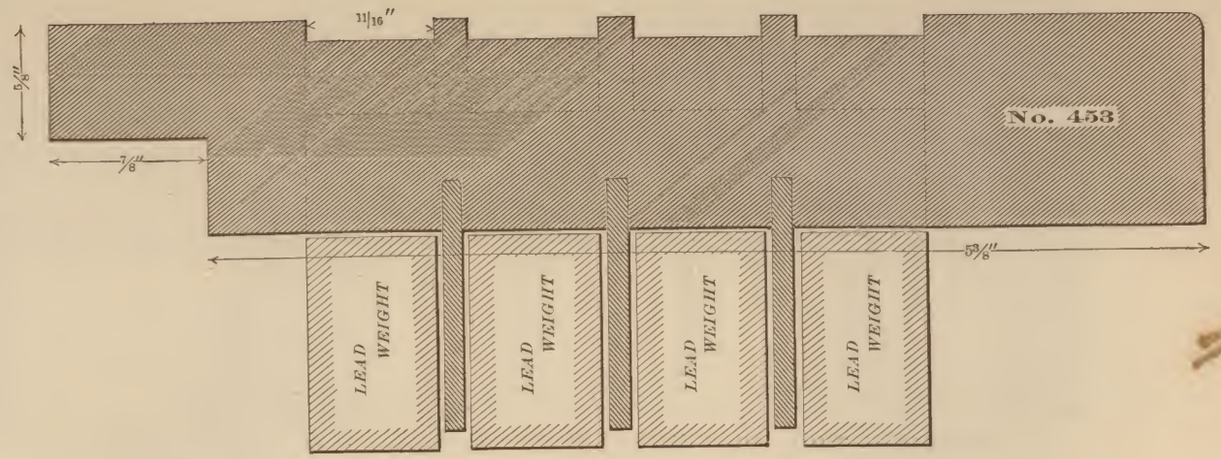
Full-Size Sections of Boxed Guide-ways for Willer's Columbian (weight-balanced) Sliding Blinds Nos. 1, 2 and 3.

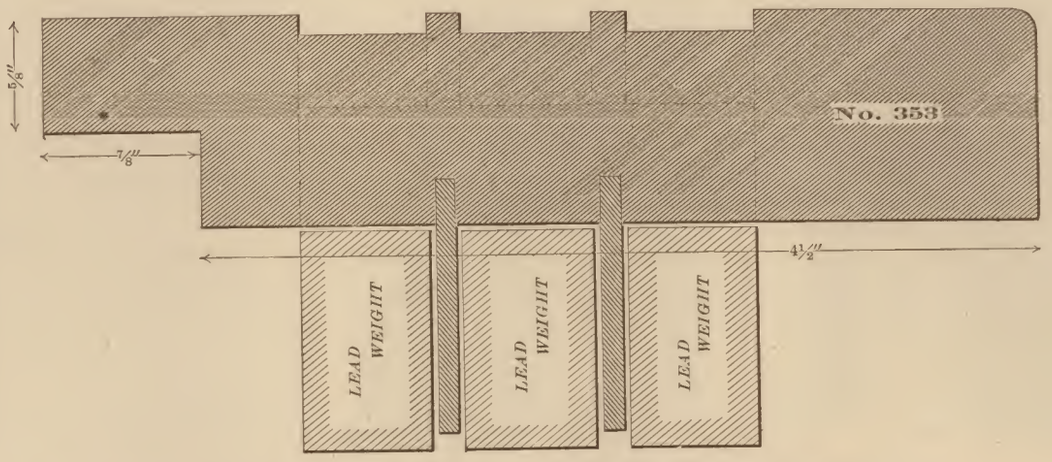


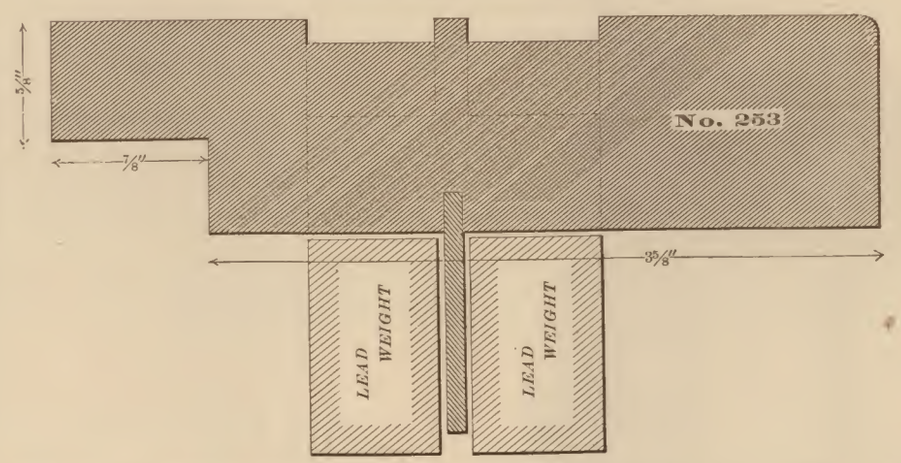




Regular Grooved Jamb Guide-ways.

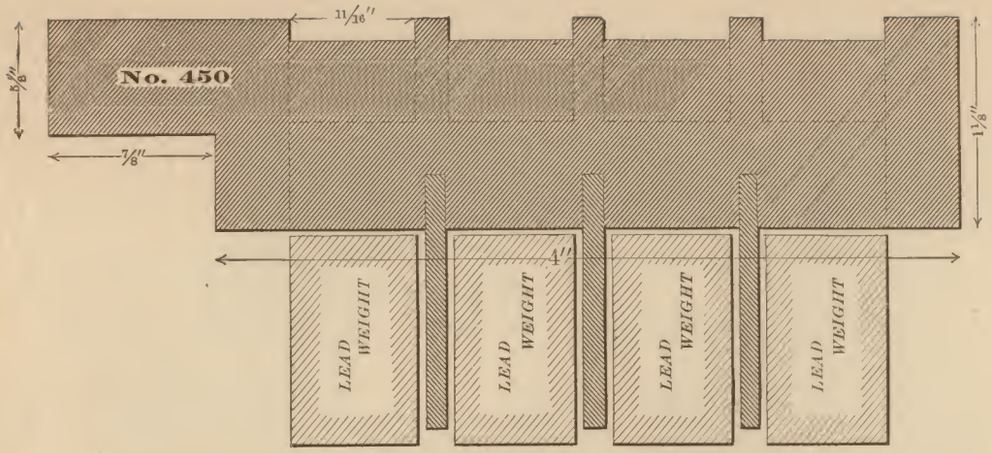


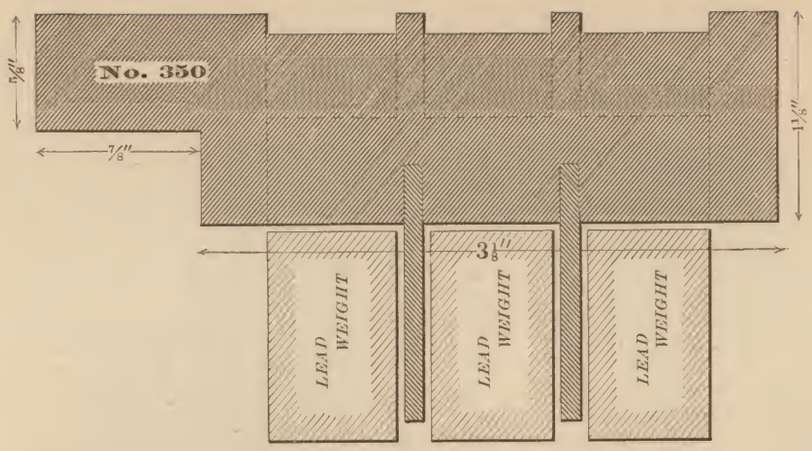


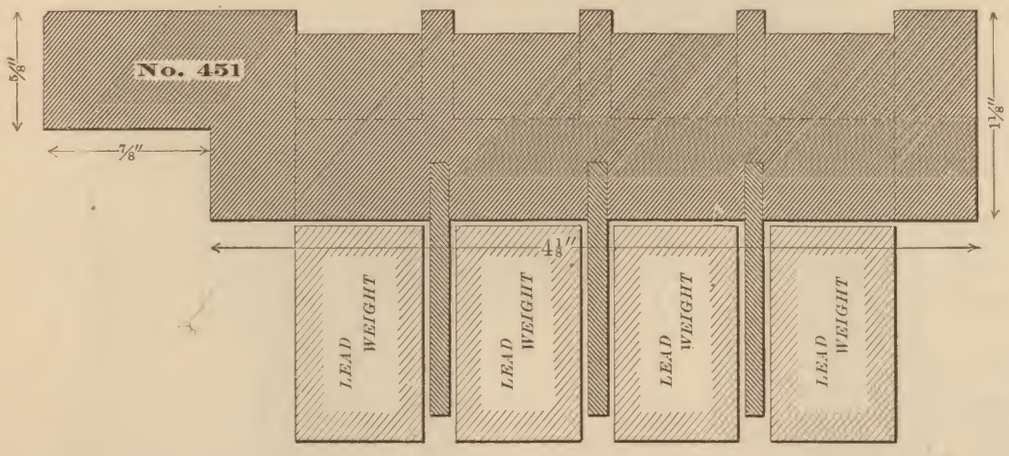


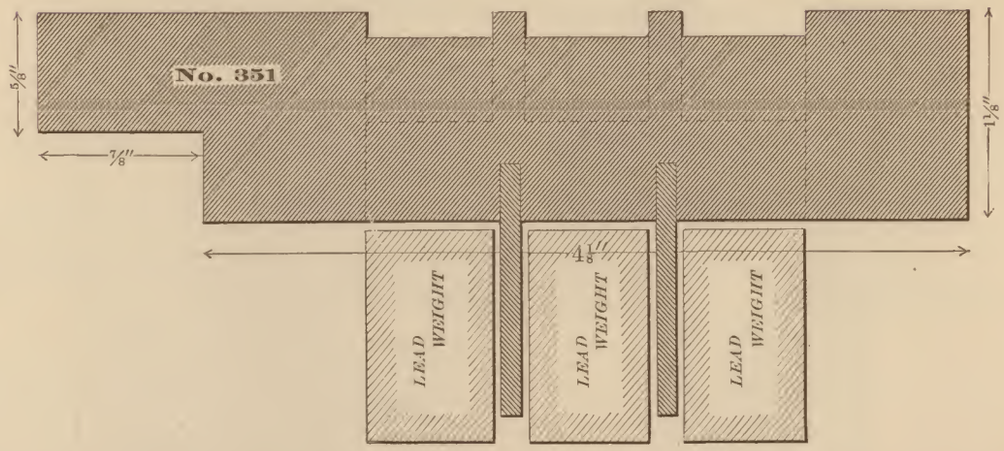
Grooved Jamb Guide-ways, with extra wide front edges, especially adapted for Classes of Blinds requiring lower pockets provided with our Hinged Window-stool. See also Guide-way No. 250, page 134.

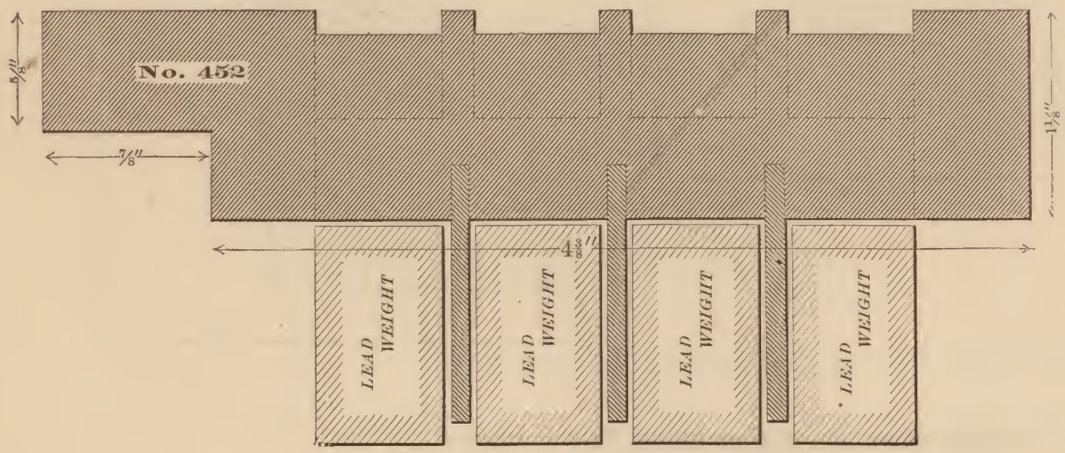
Full-Size Sections of Grooved Jamb Guide-ways for Willer's Columbian (weight-balanced) Sliding Blinds Nos. 1, 2 and 3.



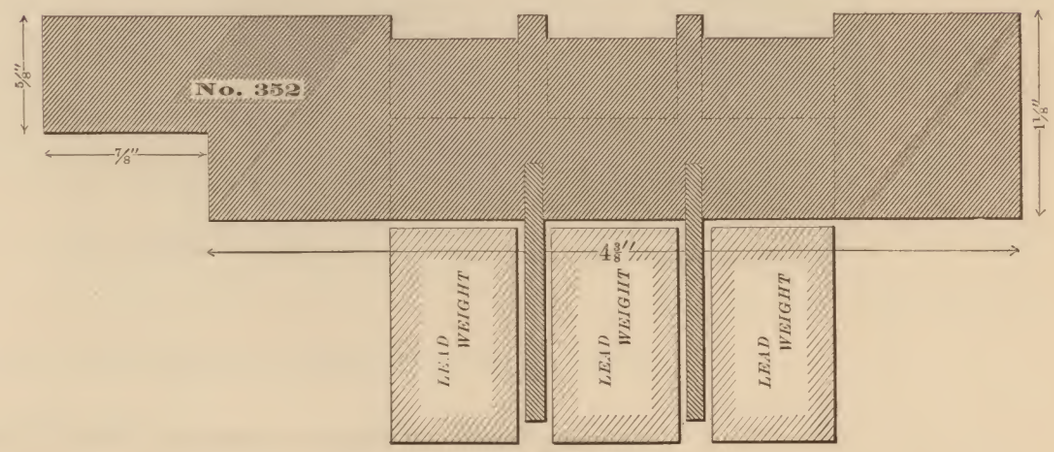






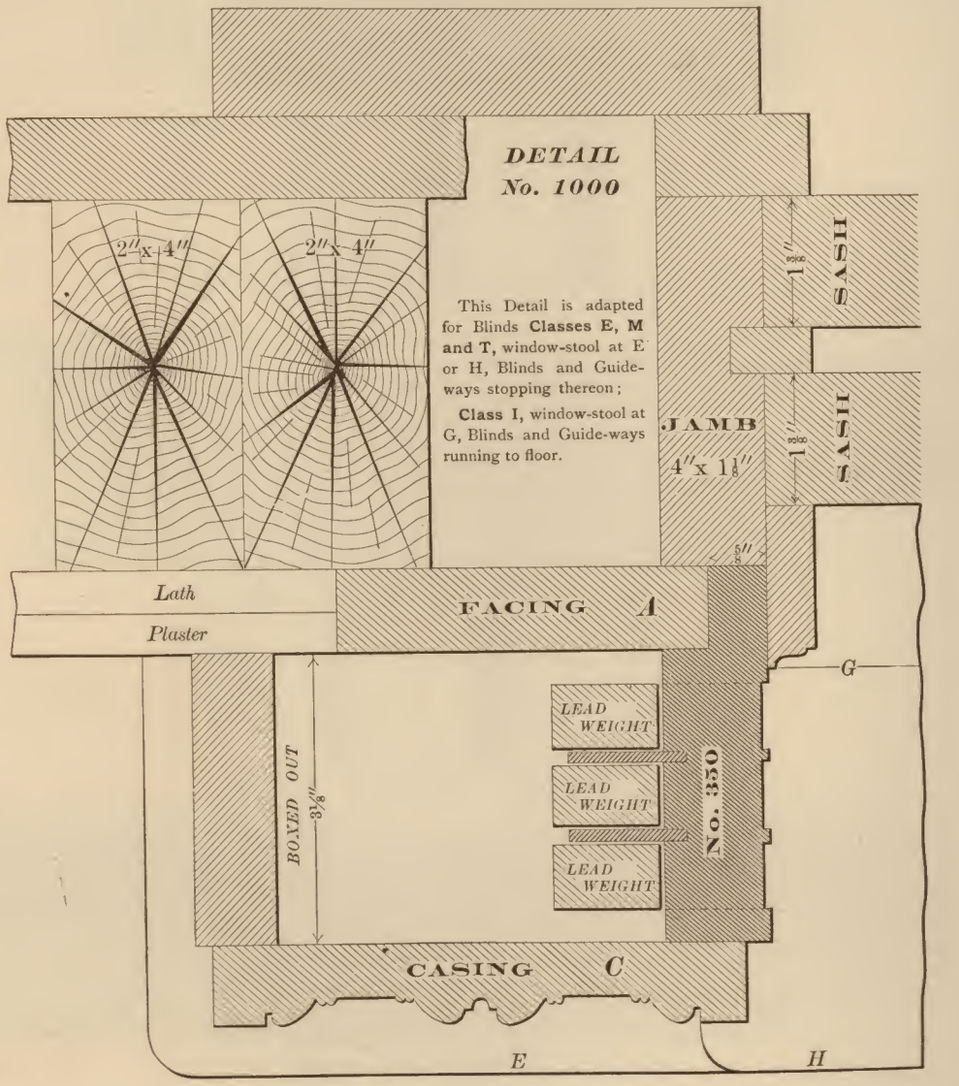


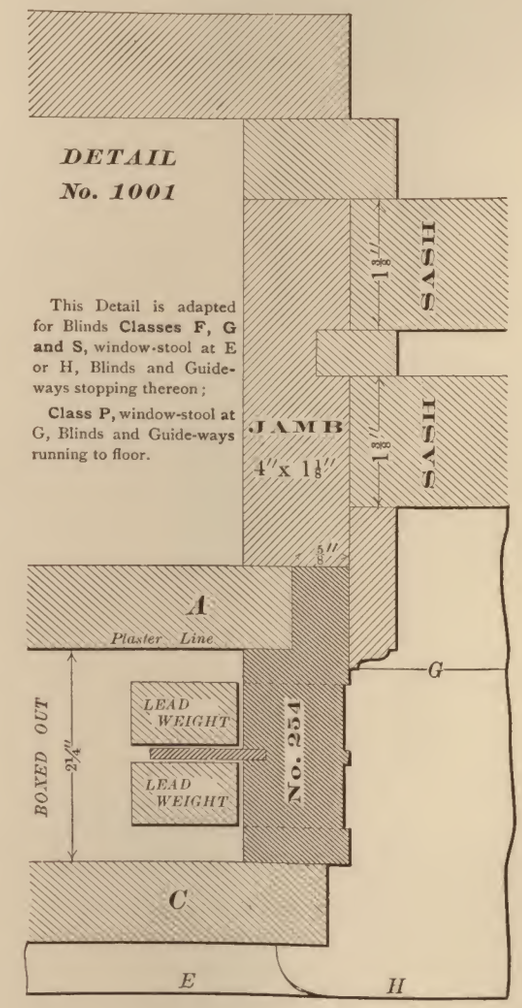
Regular Grooved Jamb Guide-ways.

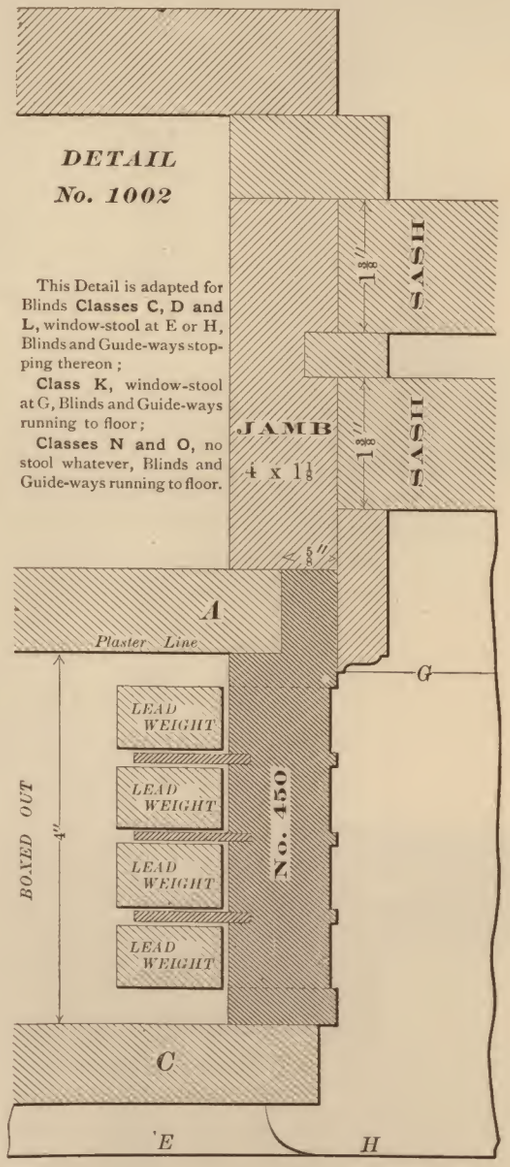


Regular Grooved Jamb Guide-ways.

Full-Size Sections of Grooved Jamb Guide-ways for Willer's Columbian (weight-balanced) Sliding Blinds Nos. 1, 2 and 3.

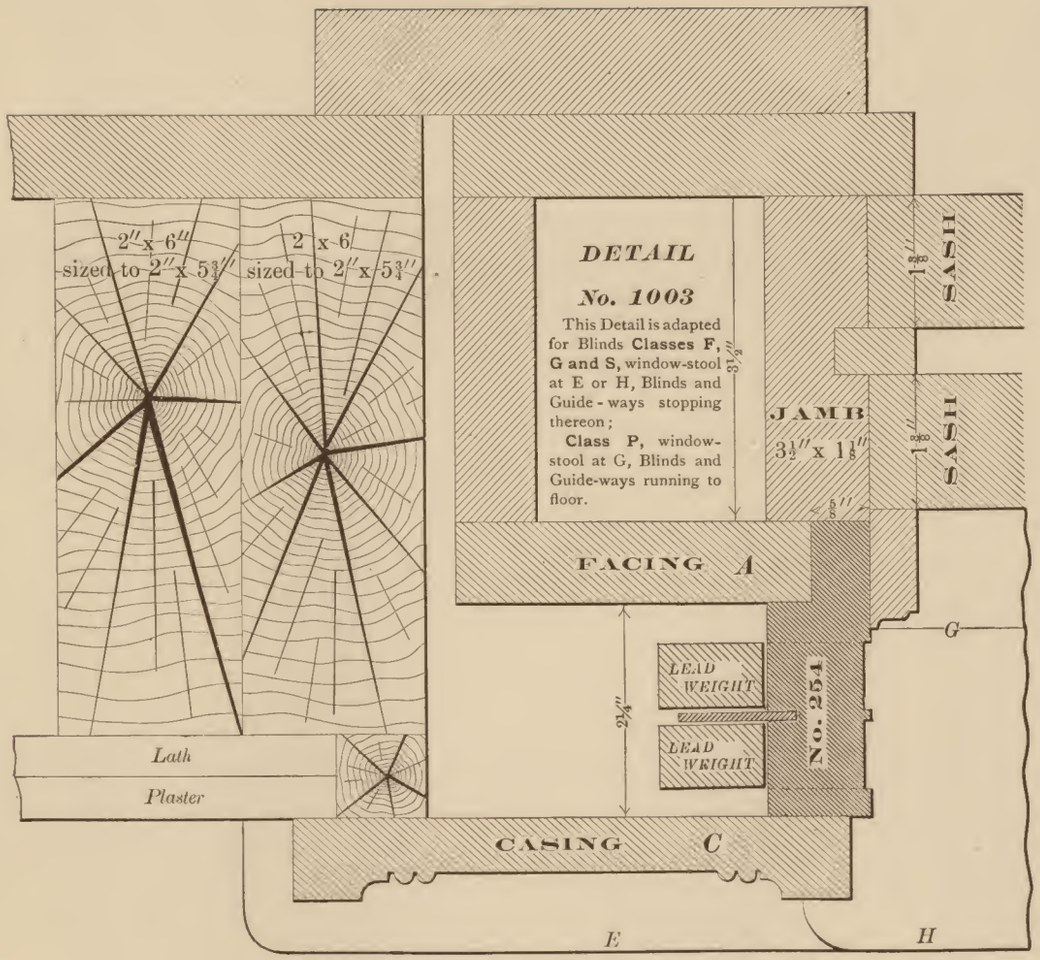


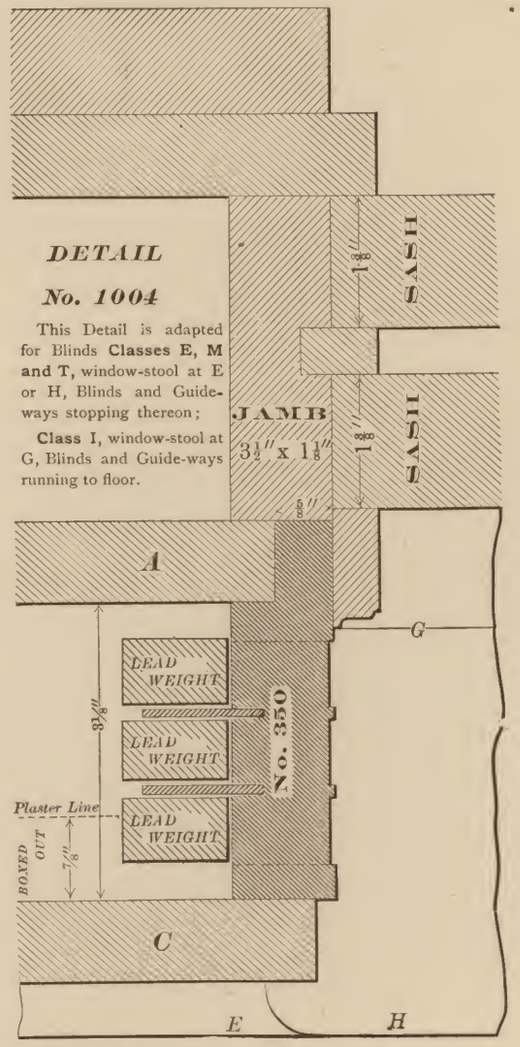


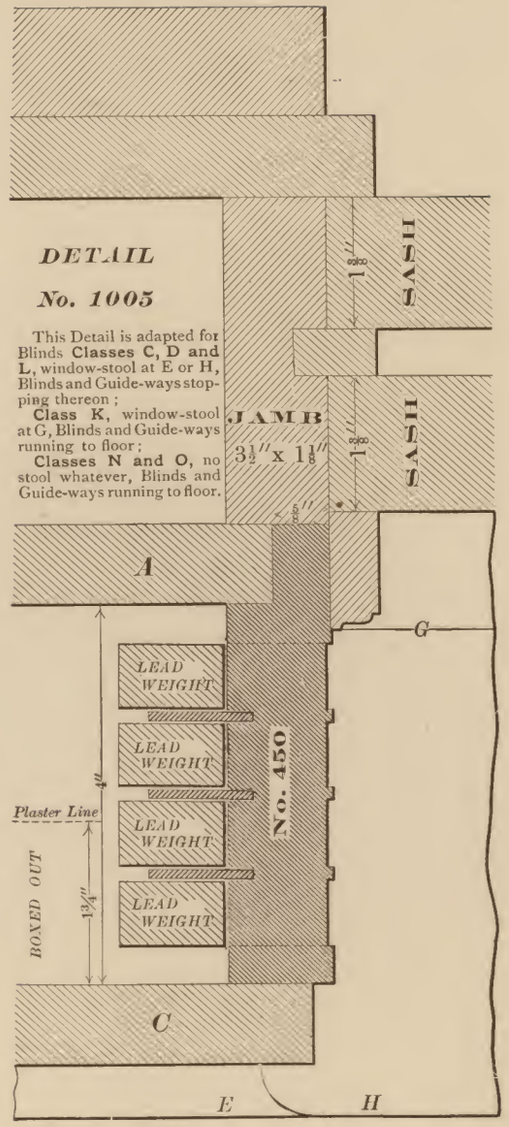


Half-Size Details of Window-Frames for Willer's Columbian (weight-balanced) Sliding Blinds Nos. 1, 2 and 3.

For Frame Buildings with 2 x 4 studding.

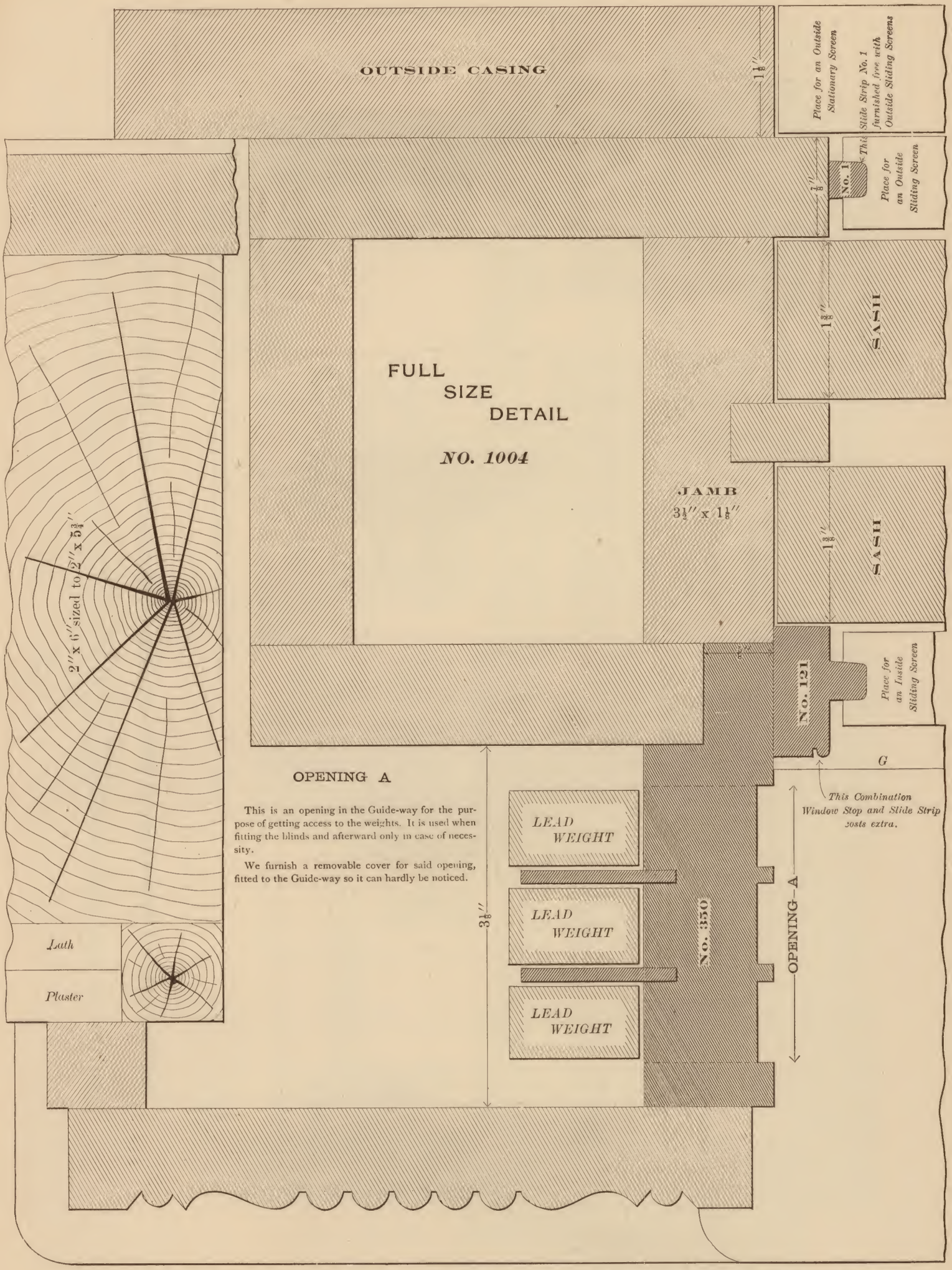






Half-Size Details of Window-Frames for Willer's Columbian (weight-balanced) Sliding Blinds Nos. 1, 2 and 3.

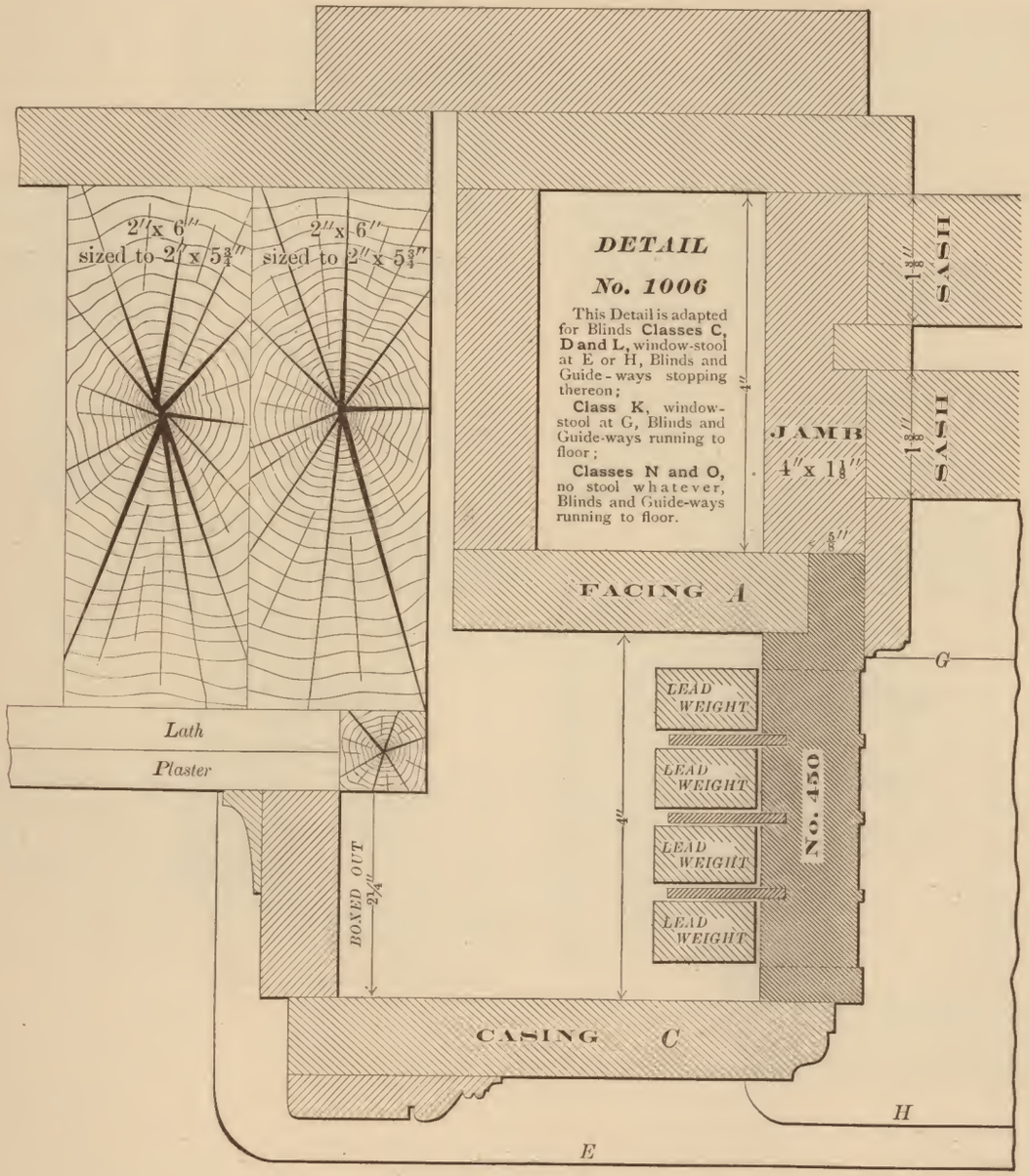
For Frame Buildings with 2 x 6 studding.



Full-Size Detail of Window-Frame for Willer's Columbian (weight-balanced) Sliding Blinds Nos. 1, 2 and 3.

For Frame Building with 2 x 6 Studding.

Showing also proper construction of Window-Frame for use of either Outside or Inside Sliding Window Screens, and Outside Stationary or Hinged Screens.



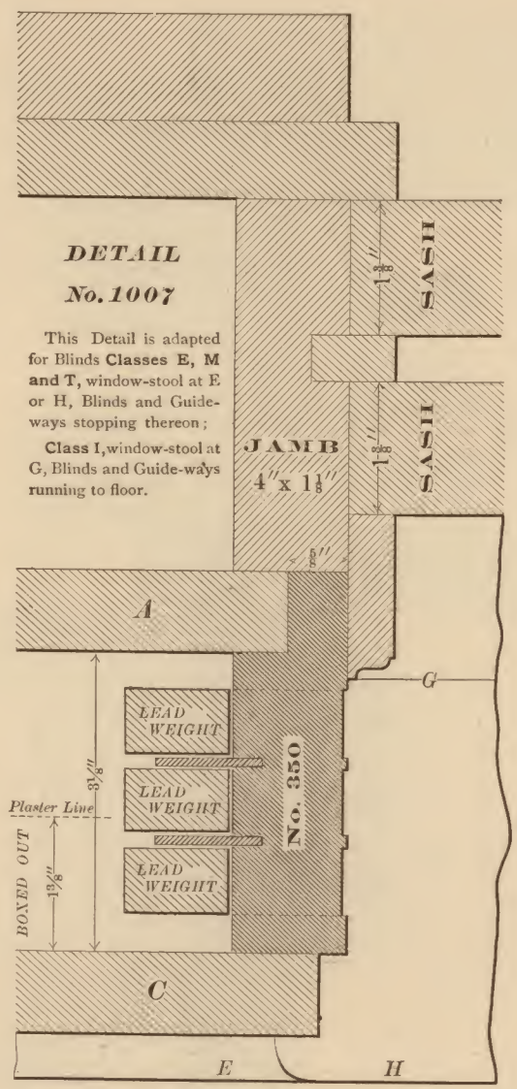
DETAIL

No. 1006

This Detail is adapted for Blinds **Classes C, D and L,** window-stool at E or H, Blinds and Guide-ways stopping thereon;

Class K, window-stool at G, Blinds and Guide-ways running to floor;

Classes N and O, no stool whatever, Blinds and Guide-ways running to floor.

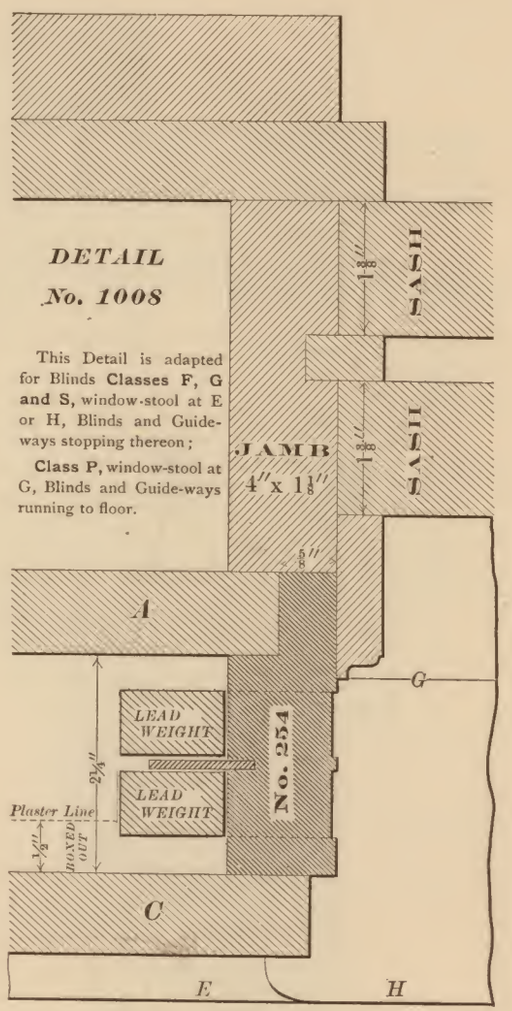


DETAIL

No. 1007

This Detail is adapted for Blinds **Classes E, M and T,** window-stool at E or H, Blinds and Guide-ways stopping thereon;

Class I, window-stool at G, Blinds and Guide-ways running to floor.



DETAIL

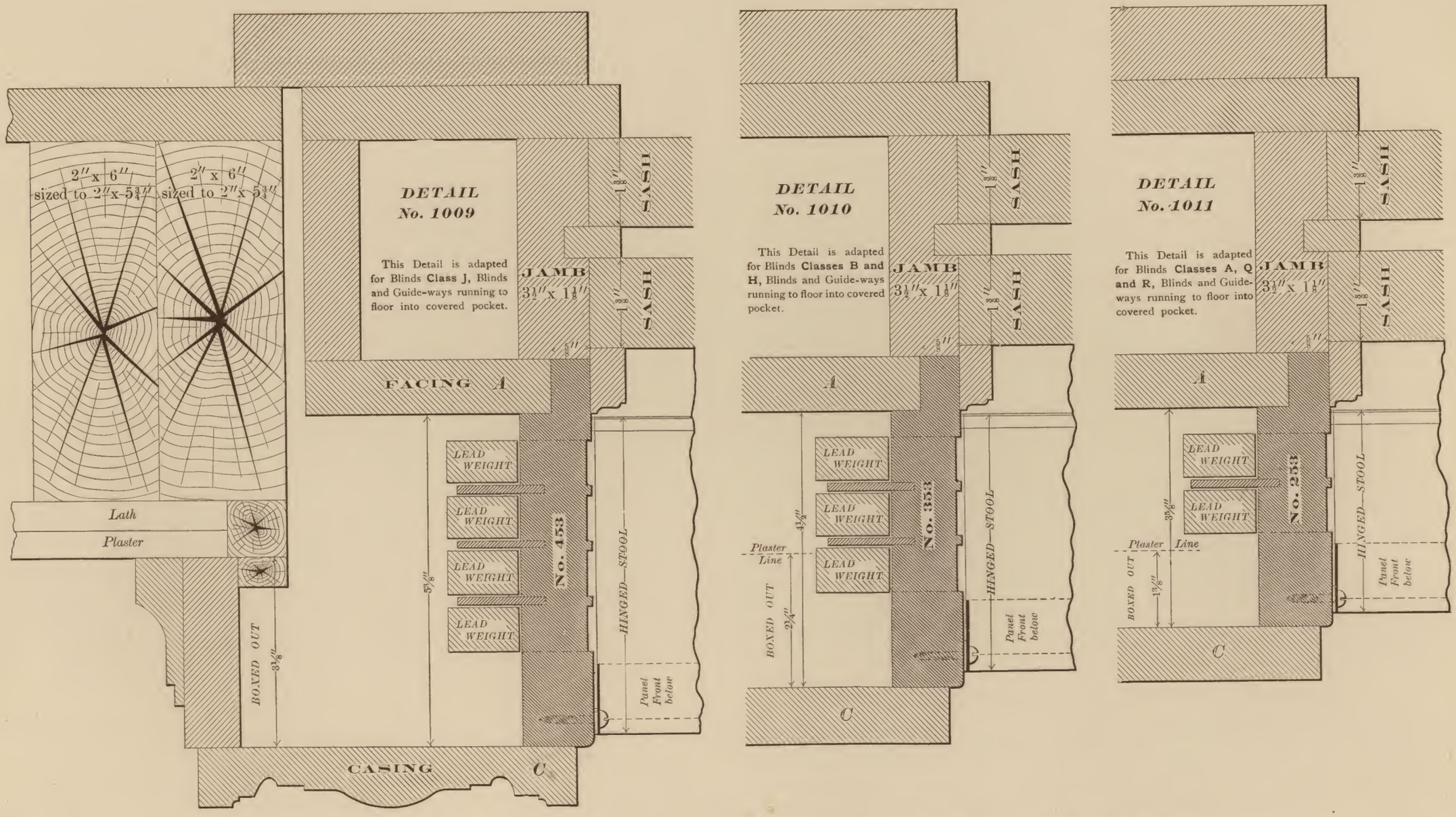
No. 1008

This Detail is adapted for Blinds **Classes F, G and S,** window-stool at E or H, Blinds and Guide-ways stopping thereon;

Class P, window-stool at G, Blinds and Guide-ways running to floor.

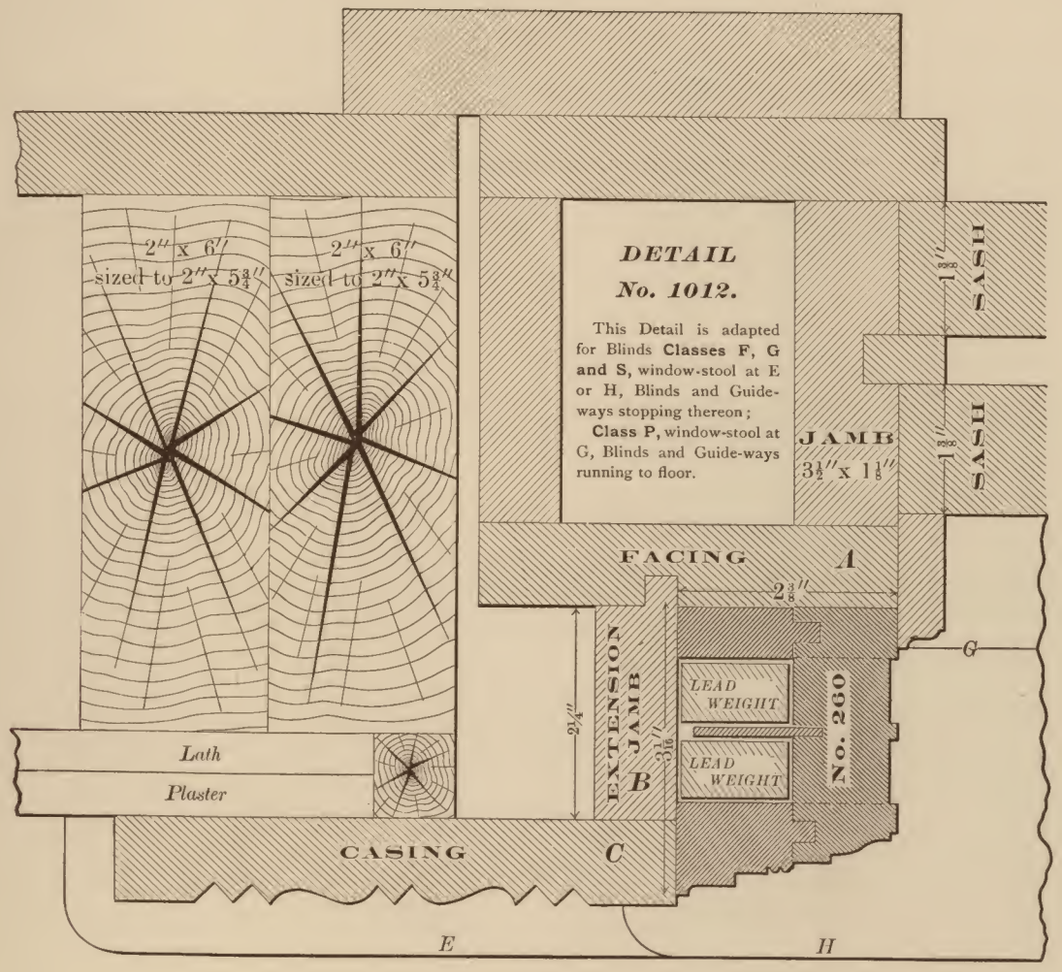
Half-Size Details of Window-Frames for Willer's Columbian (weight-balanced) Sliding Blinds Nos. 1, 2 and 3.

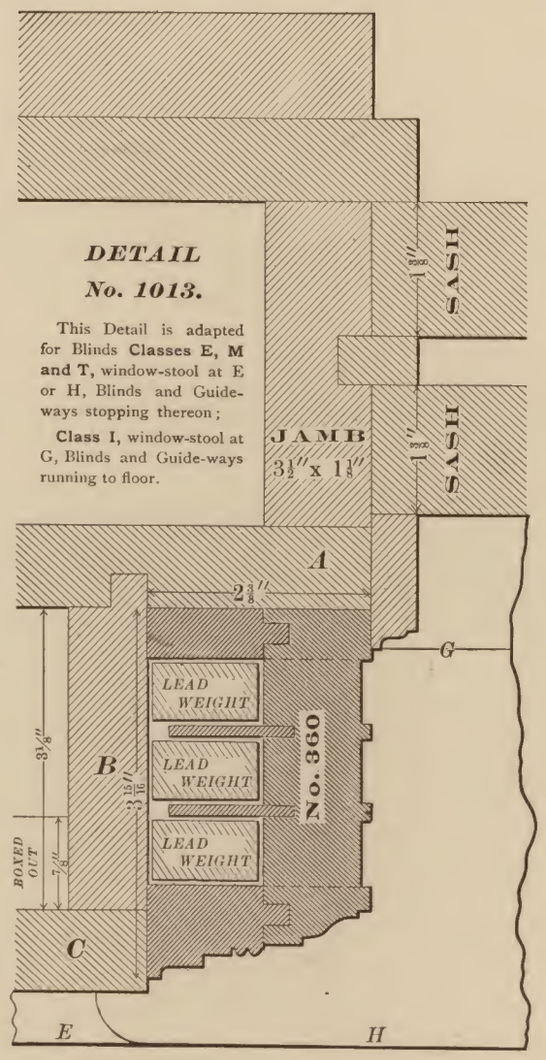
For Frame Buildings with 2 x 6 studding.

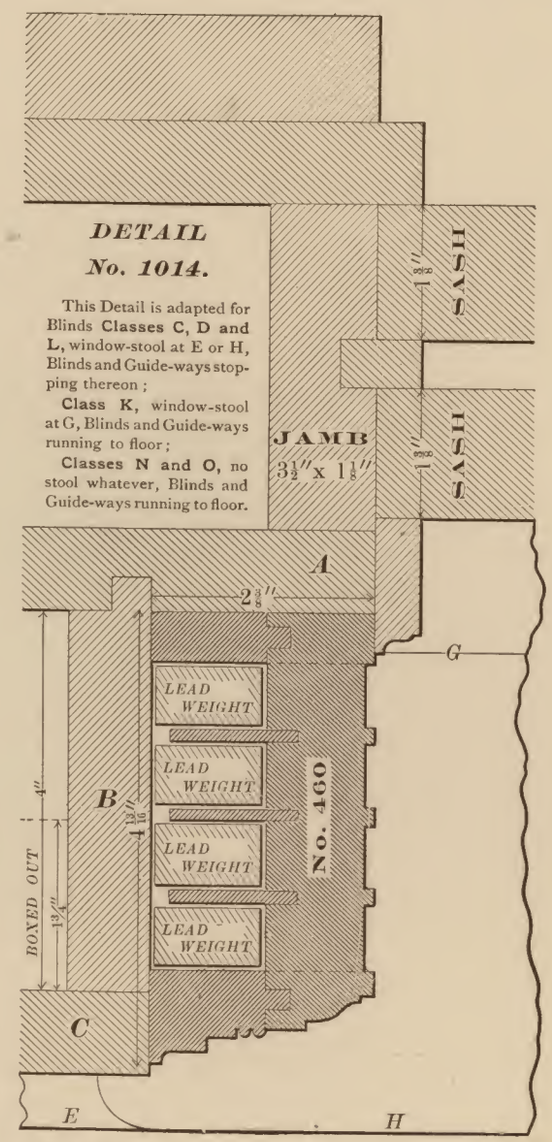


Half-Size Details of Window-Frames for Willer's Columbian (weight-balanced) Sliding Blinds Nos. 1, 2 and 3.

For Frame Buildings with 2 x 6 studding.

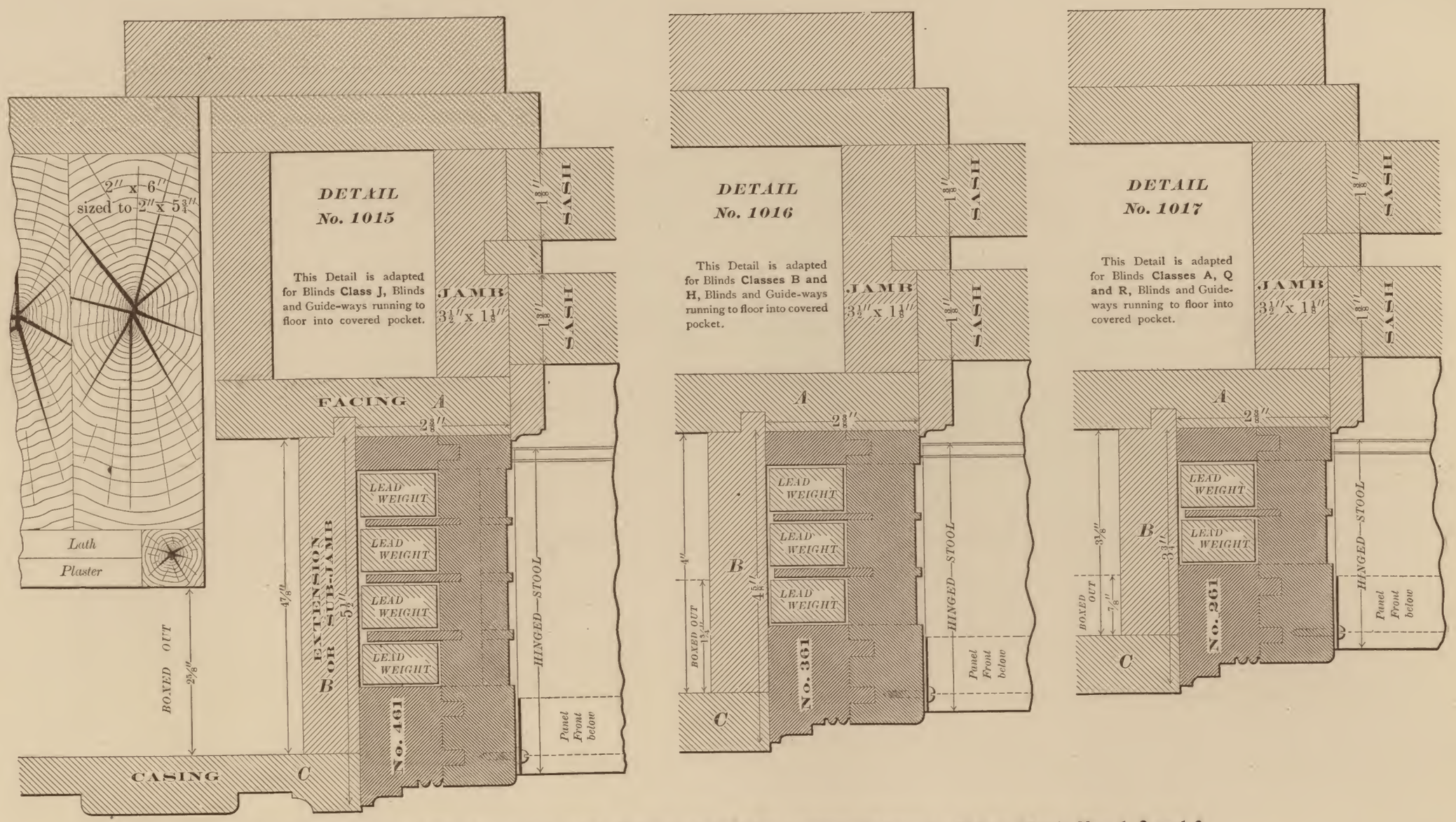






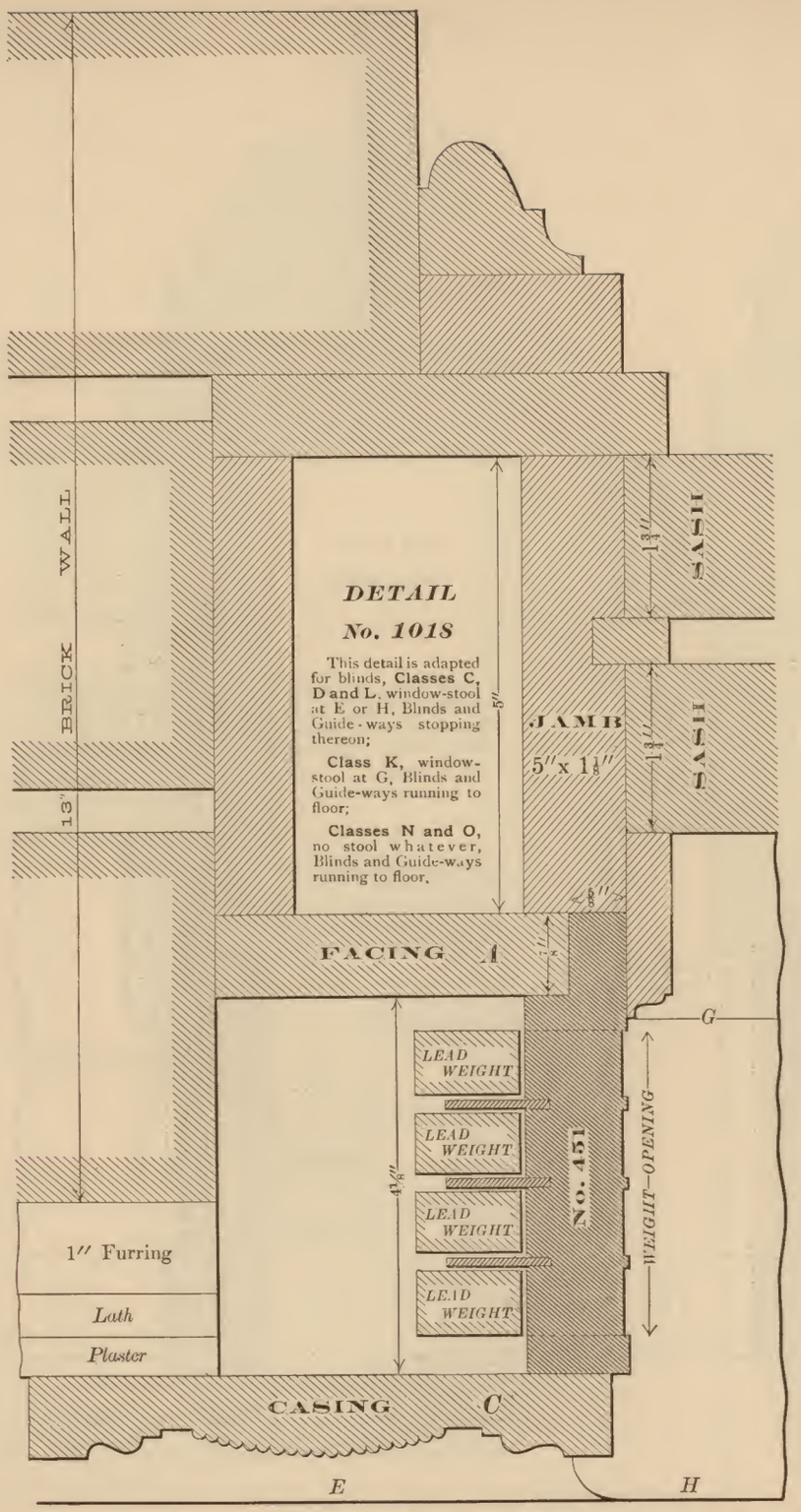
Half-Size Details of Window-Frames for Willer's Columbian (weight-balanced) Sliding Blinds Nos. 1, 2 and 3.

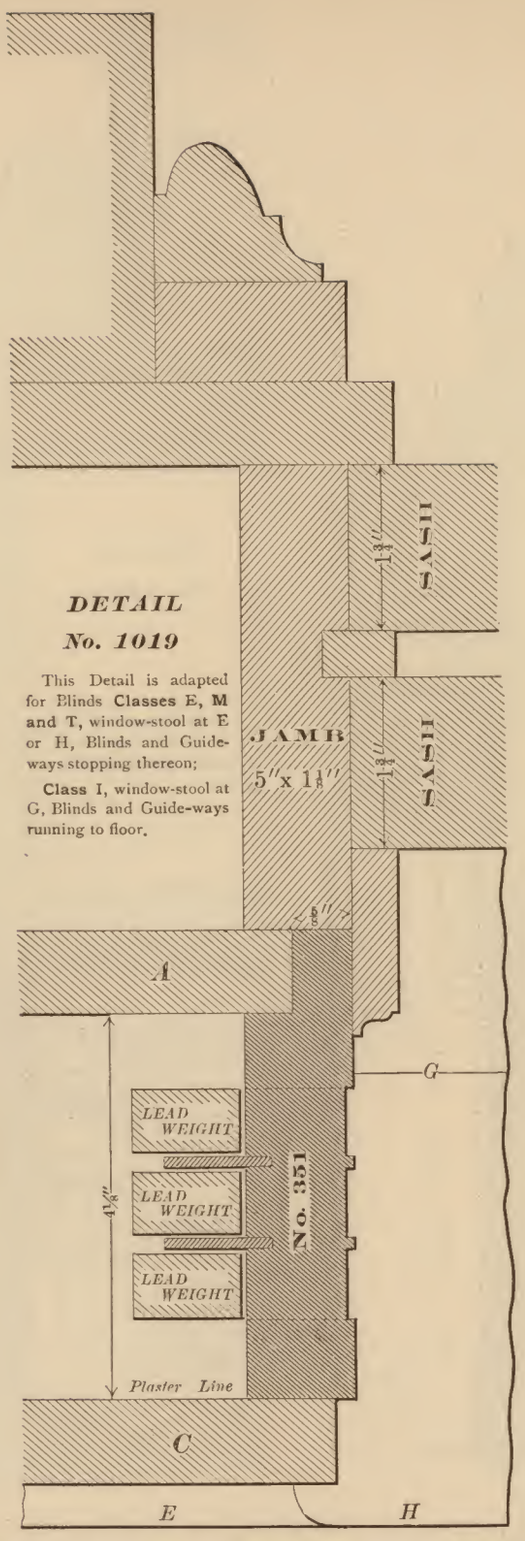
For Frame Buildings with 2 x 6 studding.

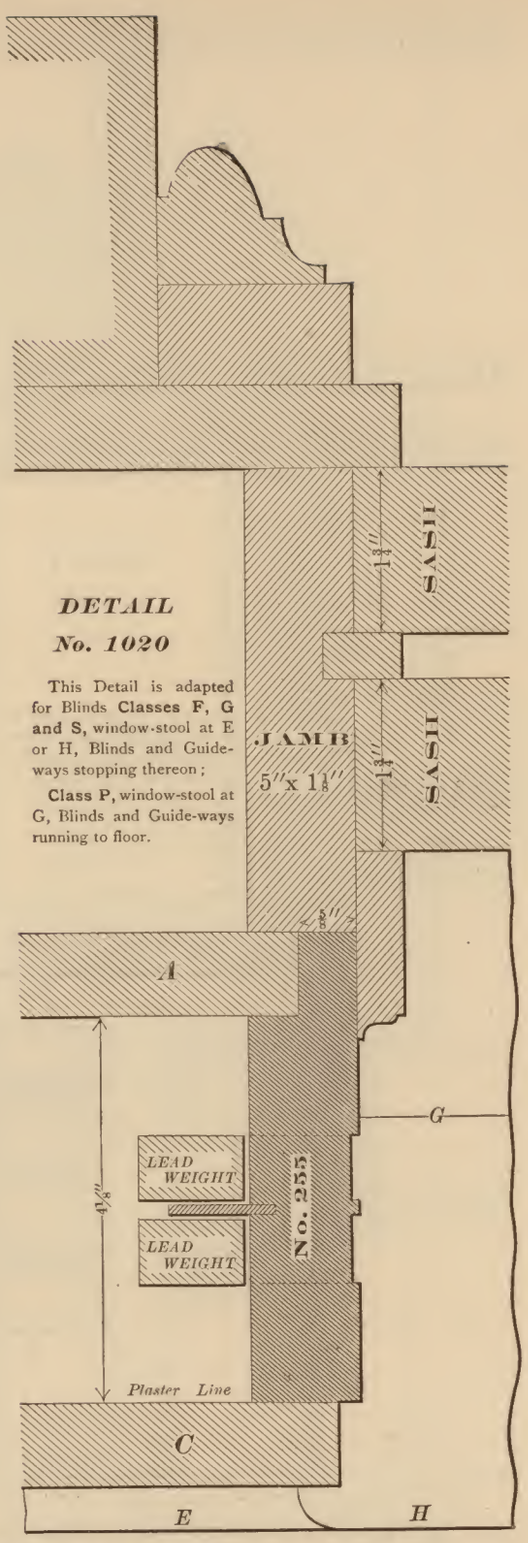


Half-Size Details of Window-Frames for Willer's Columbian (weight-balanced) Sliding Blinds Nos. 1, 2 and 3.

For Frame Buildings with 2 x 6 studding.

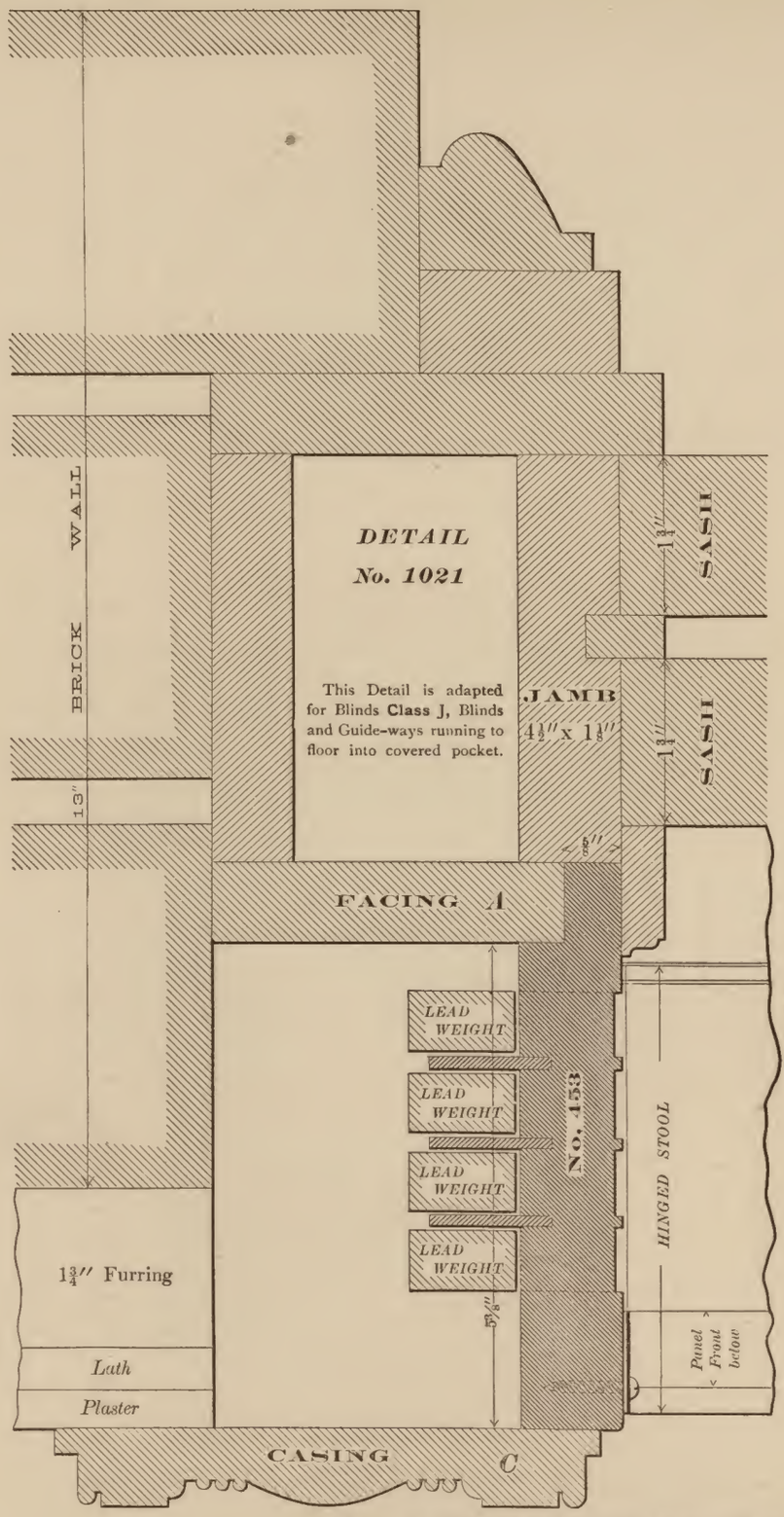


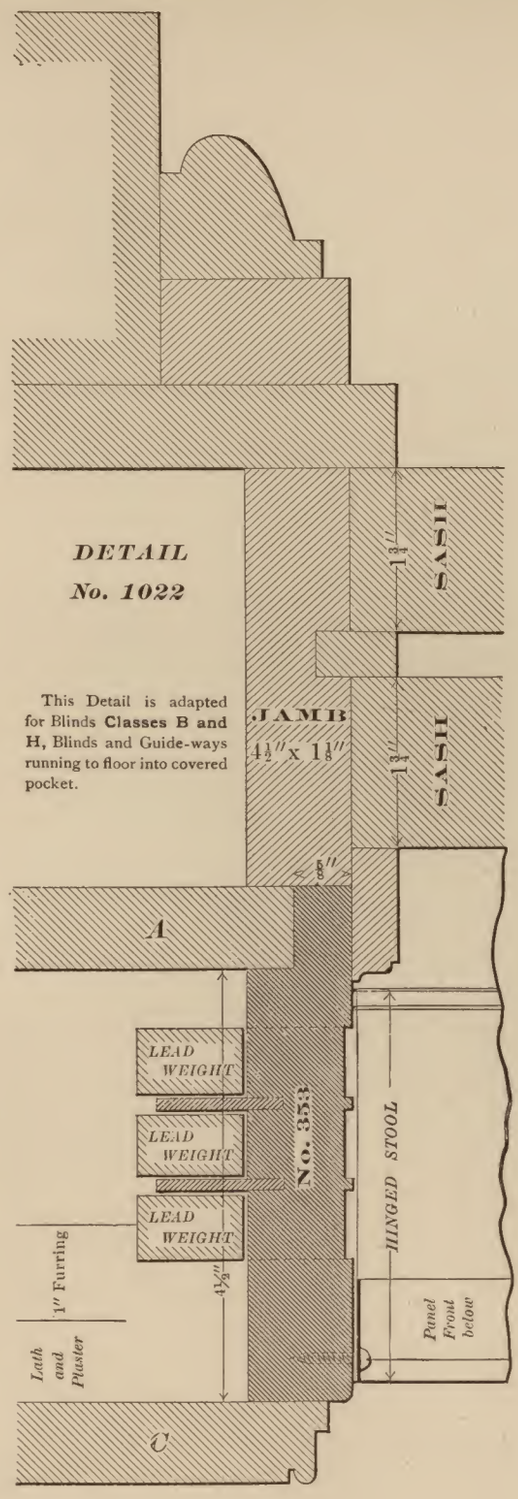


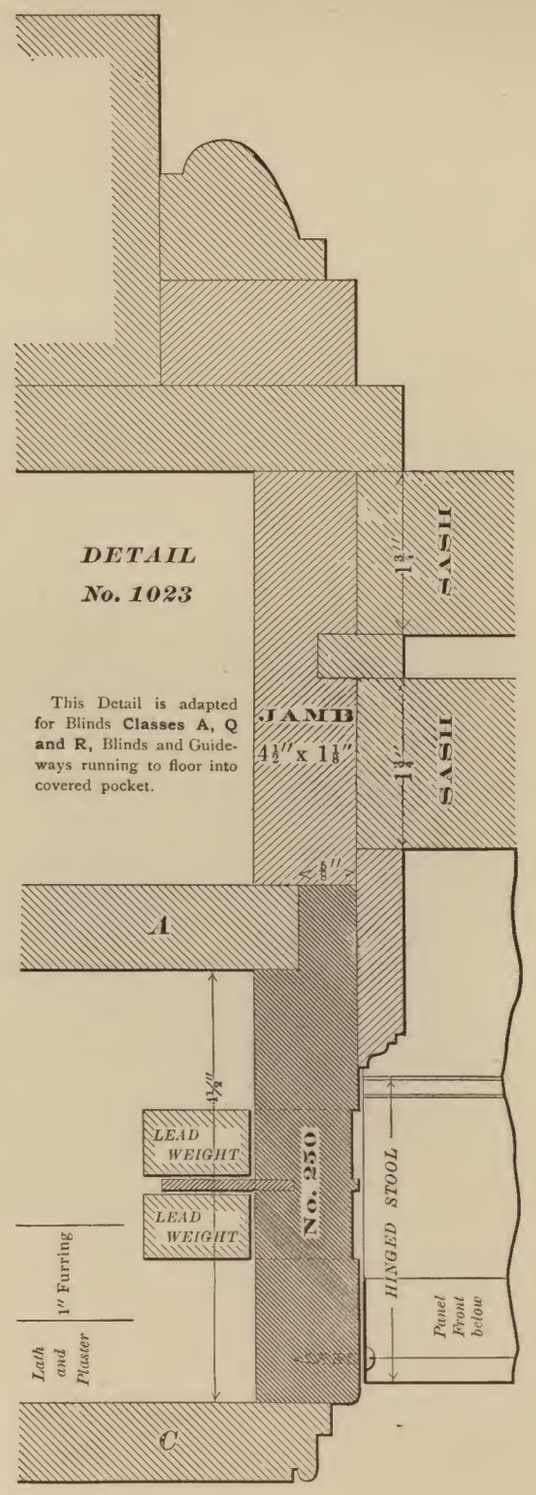


Half-Size Details of Window-Frames for Willer's Columbian (weight-balanced) Sliding Blinds Nos. 1, 2 and 3.

For 13 inch thick Brick Walls.

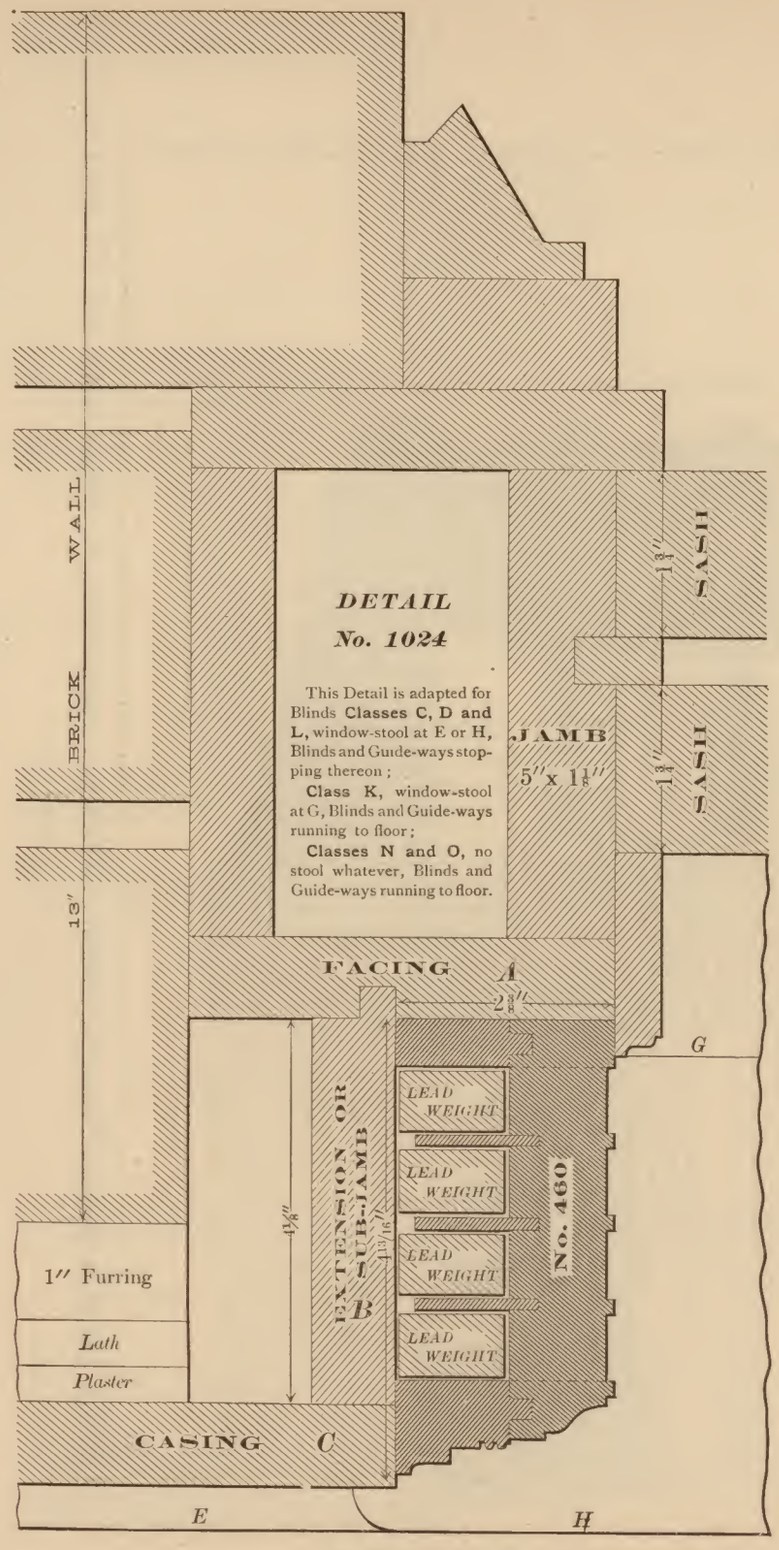


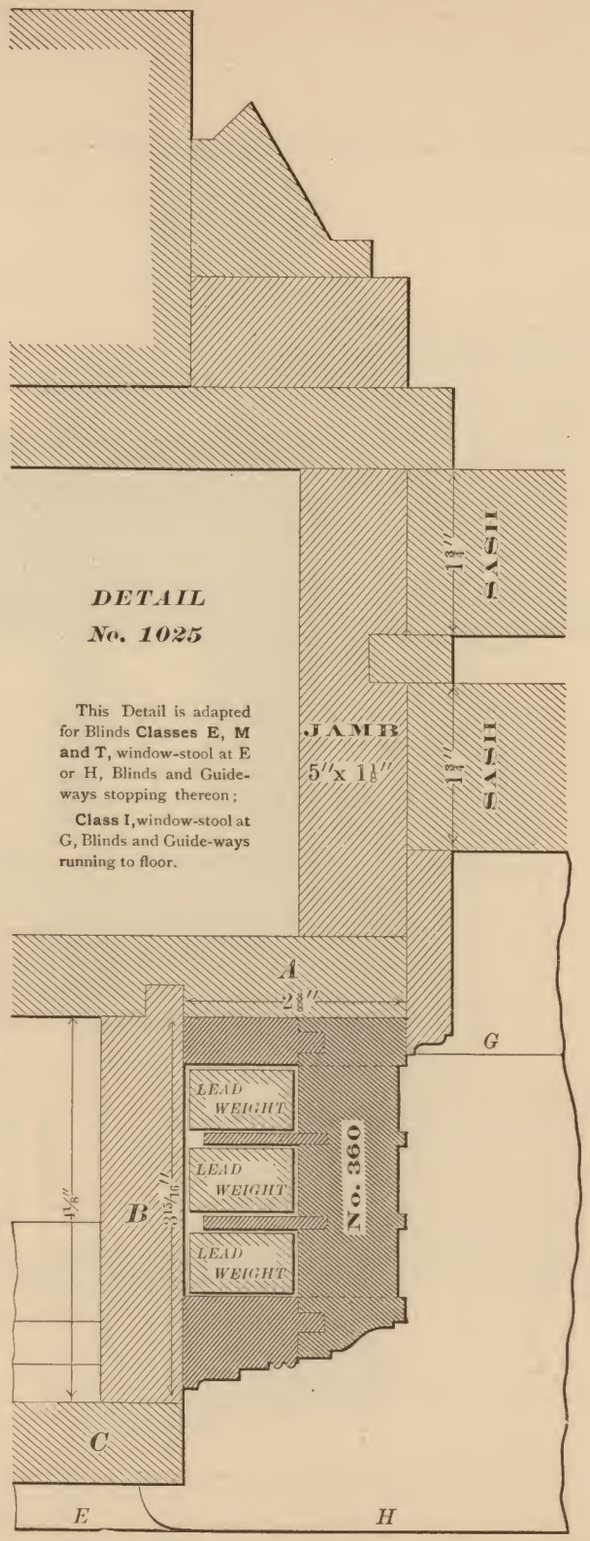


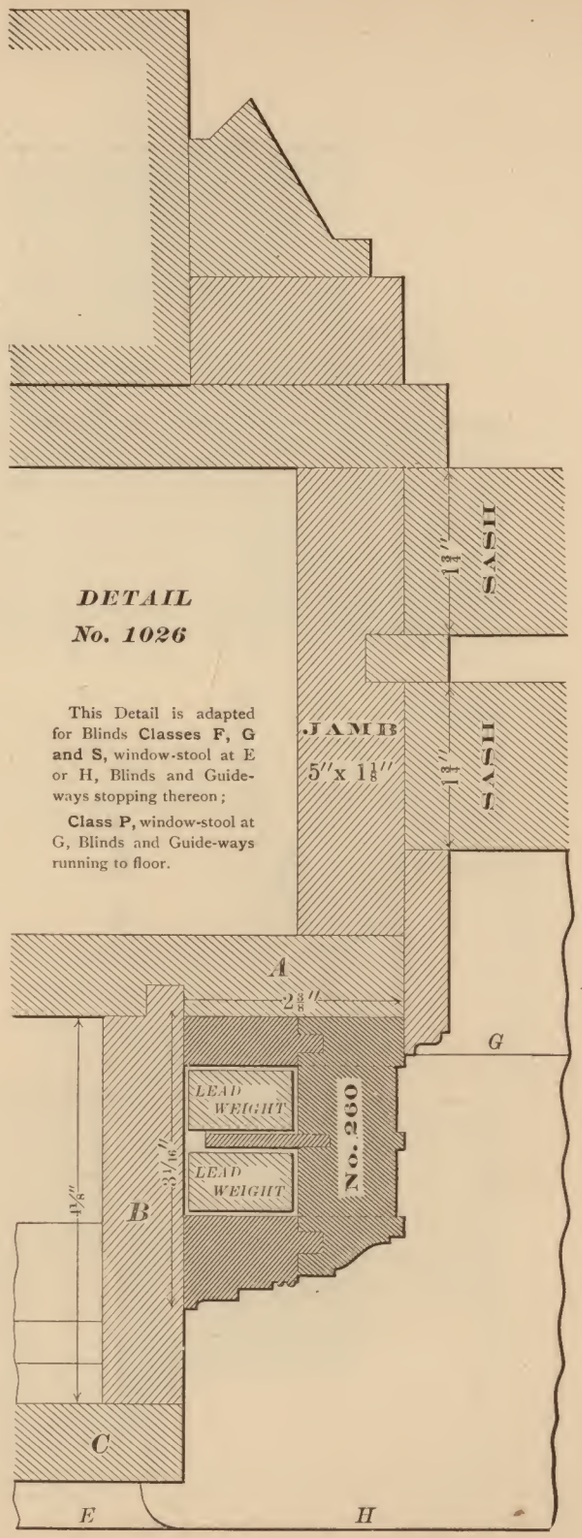


Half-Size Details of Window-Frames for Willer's Columbian (weight-balanced) Sliding Blinds Nos. 1, 2 and 3.

For 13 inch thick Brick Walls.

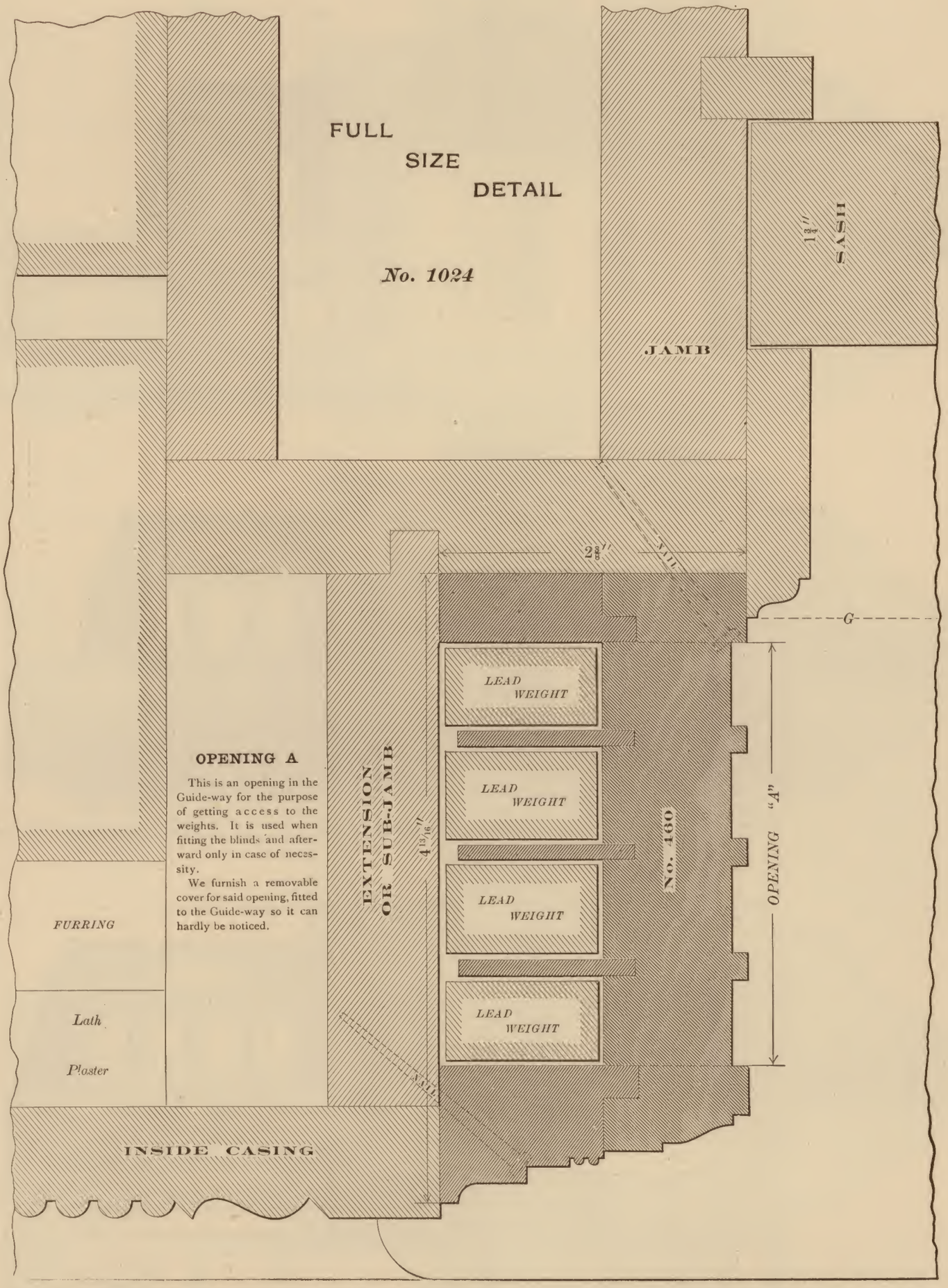






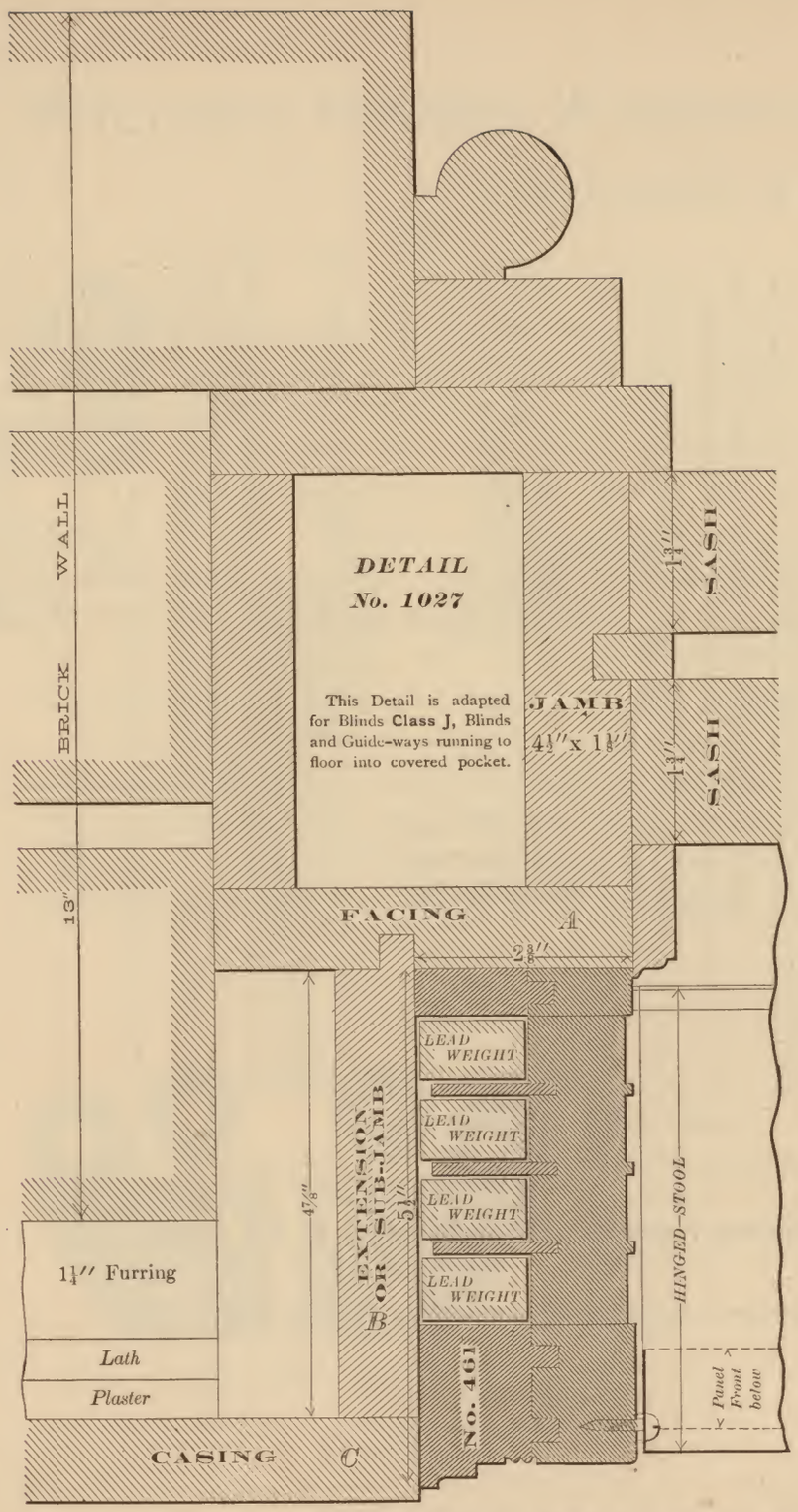
Half-Size Details of Window-Frames for Willer's Columbian (weight-balanced) Sliding Blinds Nos. 1, 2 and 3.

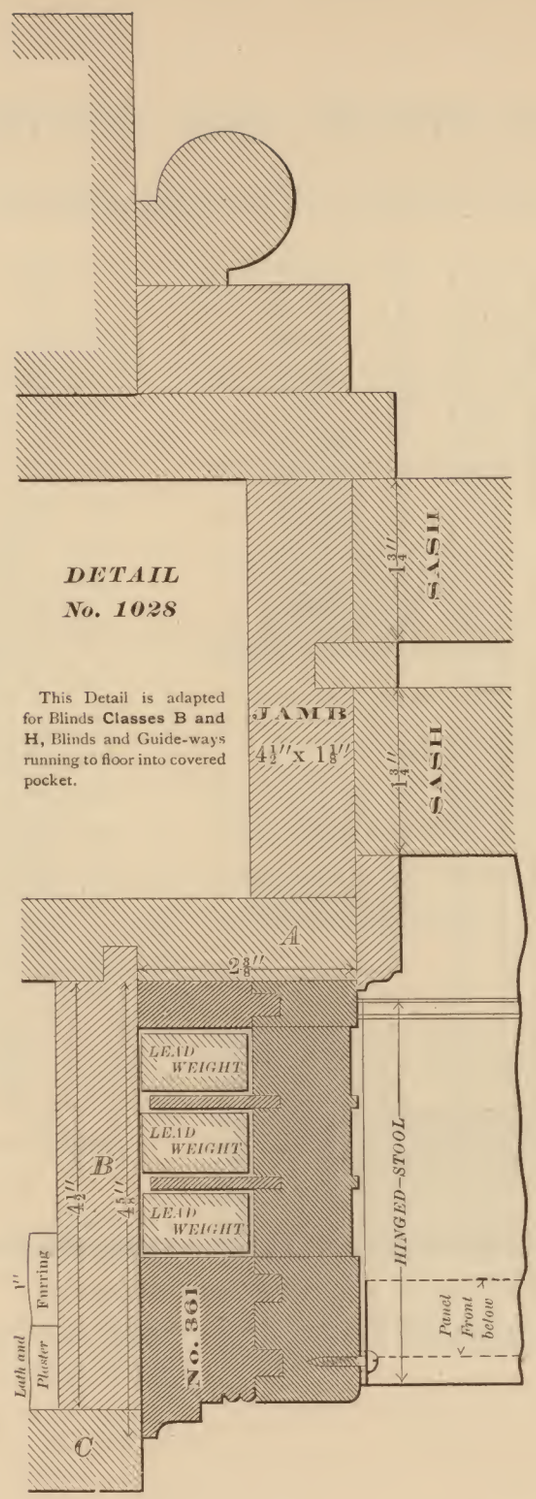
For 13 inch thick Brick Walls.

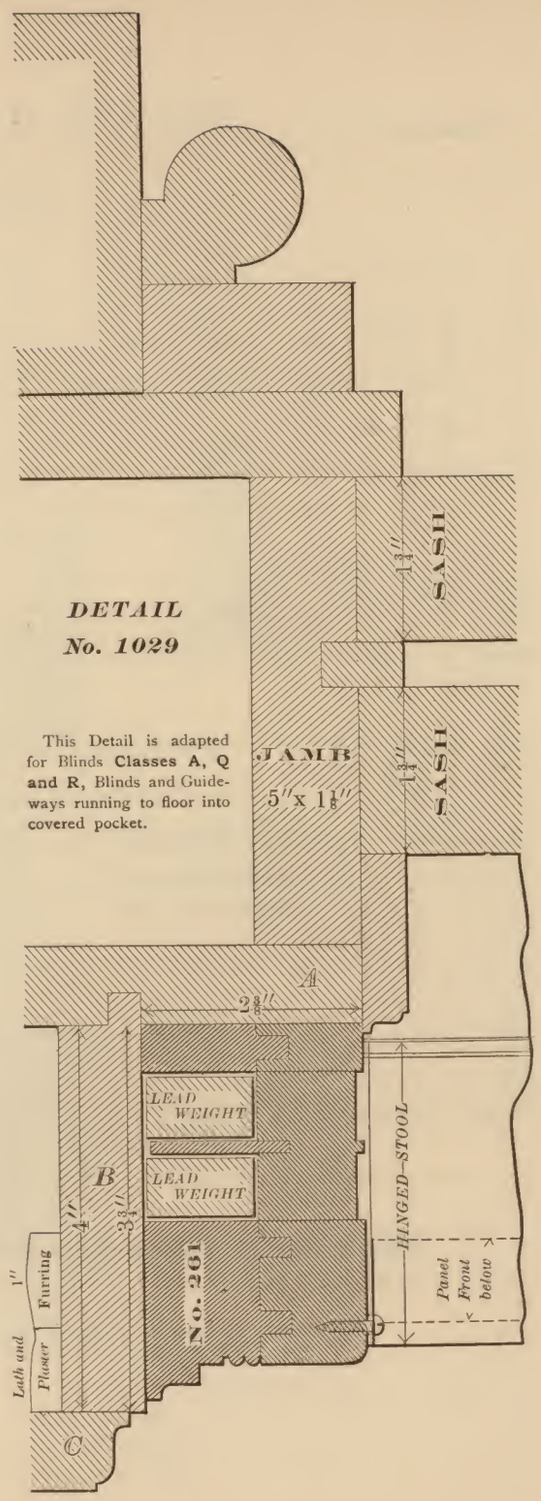


Full-Size Detail of Window Frame for Willer's Columbian (weight-balanced) Sliding Blinds Nos. 1, 2 and 3.

For Brick Walls.







Half-Size Details of Window-Frames for Willer's Columbian (weight-balanced) Sliding Blinds Nos. 1, 2 and 3.

For 13 inch thick Brick Walls.

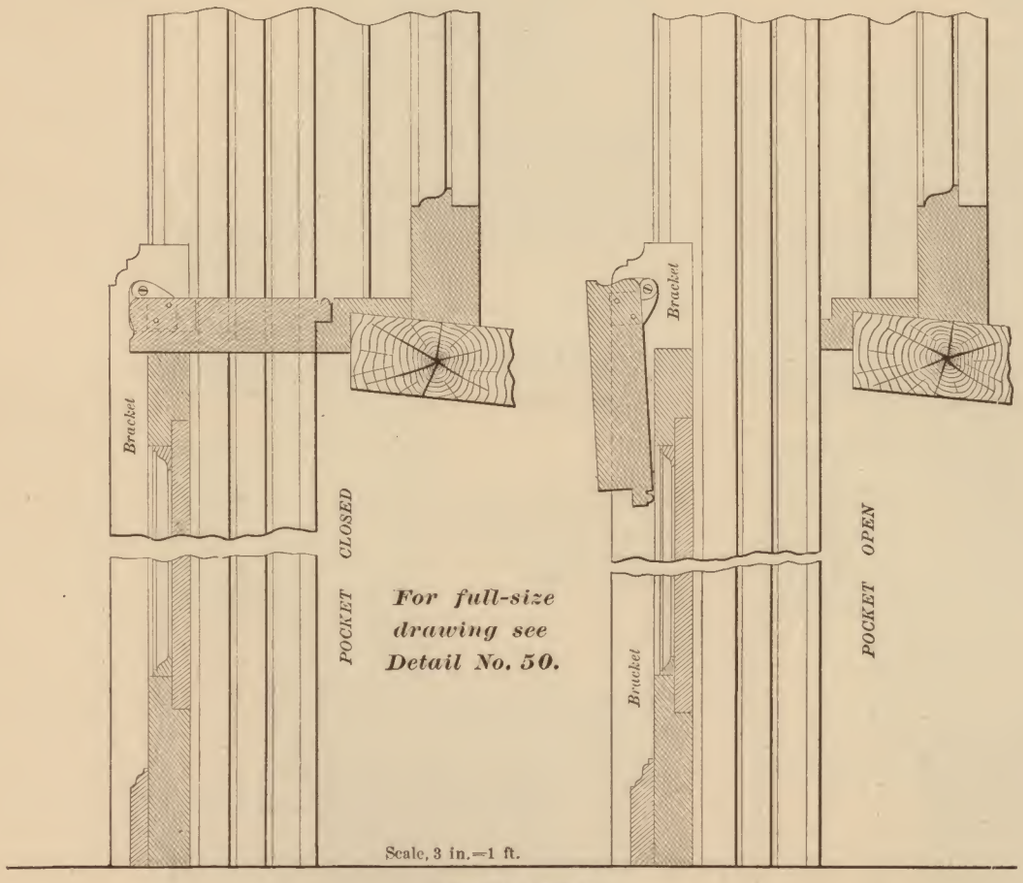


Figure 1. Plan C.

Showing construction in connection with Brackets and Guide-ways having widened front edges.

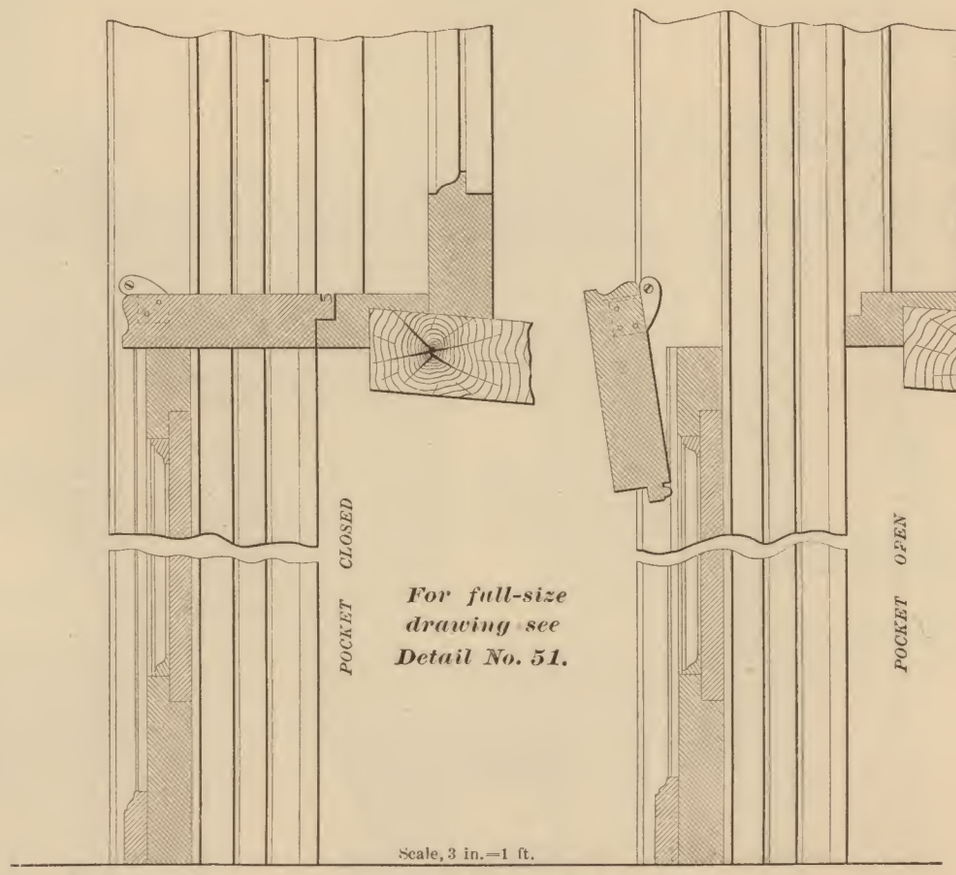


Figure 2. Plan D.

Showing construction in connection with Guide-ways having extra wide front edges.

Willer's Hinged Window-Stool and Removable Panel for Classes of Sliding Blinds requiring Lower Pockets, Classes A, B, H, J, Q and R.

(Patents issued and applied for.)

To be used only in connection with Willer's Columbian and Standard Sliding Blinds, Nos. 1, 2 and 3.

See further description on next page.

WILLER'S HINGED WINDOW-STOOL AND REMOVABLE PANEL

FOR CLASSES OF BLINDS REQUIRING LOWER POCKETS.

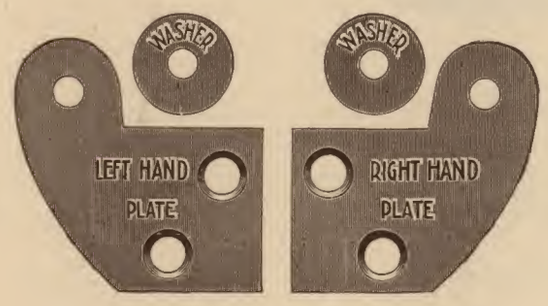
THE foregoing illustrations represent our new arrangement for providing window-frames with lower pockets, into which the different sections of blinds can slide and be out of the way when not in use. The window-stool is hinged so that it can be opened and closed at will, and when open, is suspended in front of the panelling. The hinge-plates are secured to both ends of the window-stool, and turn over a round-headed screw fastened into the face of the Bracket or Guide-way. Between the face of Guide-way or Bracket and the hinge-plates, a small washer is placed to prevent chafing, and allow the window-stool to open more easily. A suitable lift is secured to the top of the window-stool, set flush, by the aid of which it can readily be opened.

Figure 1 shows the arrangement in connection with Brackets and Guide-ways having widened front edges. Its proper construction is explicitly shown in full-size Detail No. 50, page 153; Plan C, page 156, Willer's Systems of Removable Panels, and in half-size Details of Window-frames, Nos. 230, 232 and 234, page 109; Nos. 334, 336 and 338, page 117; No. 340, page 118, and No. 341, page 119.

Figure 2 shows the arrangement in connection with Guide-ways having extra wide front edges. Its proper construction is explicitly shown in full-size Detail No. 51, pages 154 and 155; Plan D, page 157, Willer's Systems of Removable Panels, and in half-size Details of Window-frames, Nos. 231, 233 and 235, page 109; Nos. 335, 337 and 339, page 117; No. 342, page 120; No. 343, page 121; No. 344, page 122, and Nos. 412, 413, 414 and 415, page 127.

Detail No. 345, page 123, shows construction of Removable Panel only, without Hinged Window-stool, for a Top Pocket, according to Plan D, page 157, Willer's Systems of Removable Panels.

The above Hinged Window-stool and Removable Panel is not included in the price of Blinds, and must be provided for by the owner or the carpenter contractor, when making his frames and putting up his window-finish, at his own expense. The arrangement is fully covered by patents, and must not be used except in connection with Blinds furnished by us.



Willer's Window-Stool Hinges.

Wrought Bronze Metal.

A set consists of 1 right and 1 left hand hinge-plate, 2 washers and 2 round-headed screws, ⅞ inch, No. 6.

No. 1—Bronze Metal, natural finish, per set .....
No. 2— " " nickel-plated finish, " " .....
No. 3— " " antique copper finish, " " .....
Other finishes to order.



Willer's Window-Stool Lift.

Wrought Bronze Metal.

Polished face, complete with Screws.

To be fitted flush with top of stool.

No. 1—Bronze Metal, natural finish, each.....
No. 2— " " nickel-plated finish, " .....
No. 3— " " antique copper finish, " .....
Other finishes to order.



A SERIES OF CHICAGO, ILLINOIS, BUILDINGS,

Furnished with Willer Blinds or Screens.

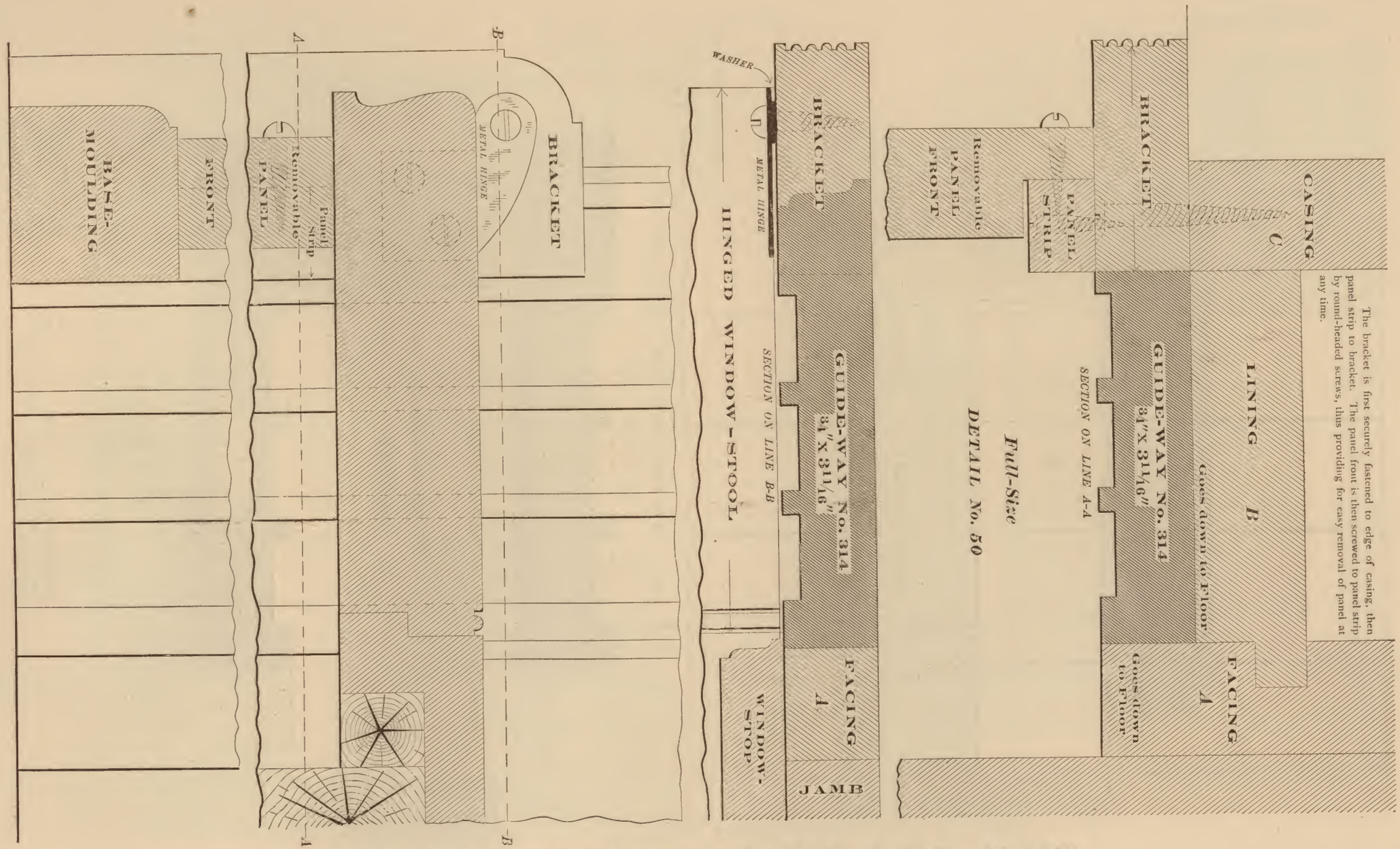
Parsonage, St. Martin's Church, Rev. J. M. Schaefer,
5842 Princeton Ave.
Schlocks & Ottenheimer, Architects.

Flats, Adolph Fischer, Proprietor,
53 Astor Place.
Theo. Karls, Architect.

The Lindemann Flats, Henry Lindemann, Proprietor,
5138 Prairie Ave.
Fry & Cunnyngham, Architects.

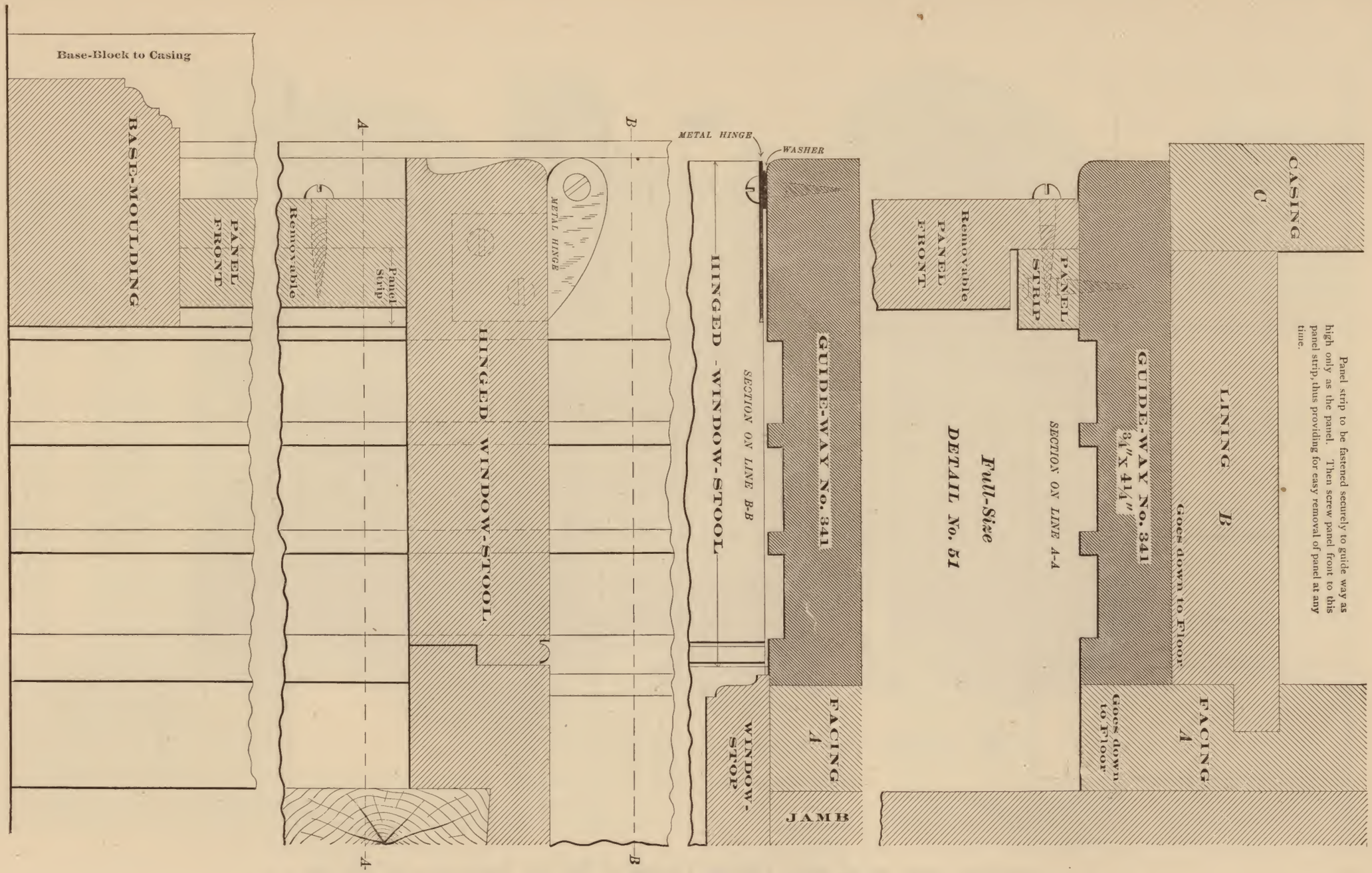
Toledo Flats, Wylie & Gougar, Proprietors,
65th Street and Myrtle Avenue.
Stiles & Stone, Architects.

Residence of C. H. Marshall,
4730 Drexel Boulevard.
H. R. Wilson, Architect.



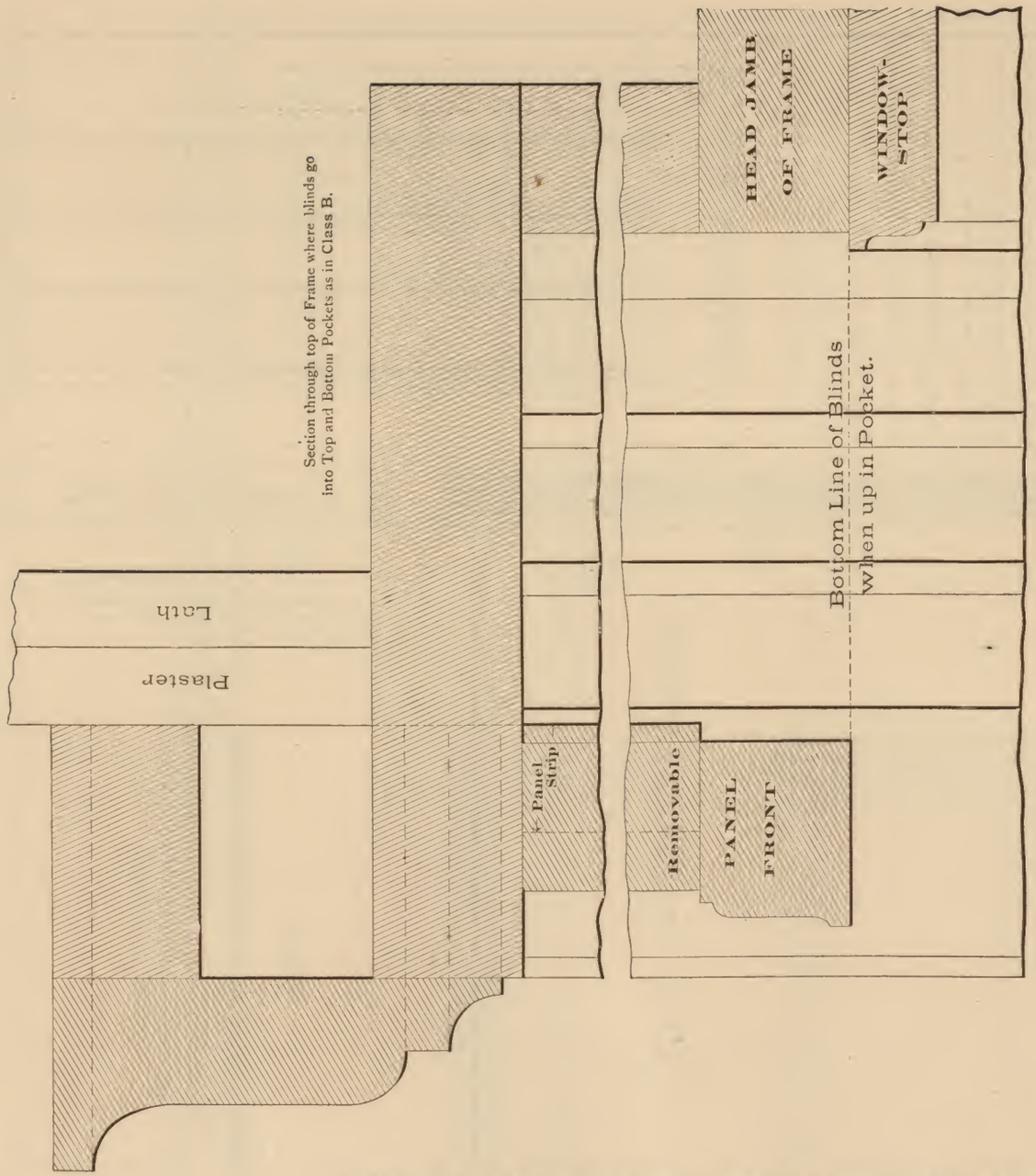
Full-Size Detail No. 50, being Full-Size Sections of Half-Size Details Nos. 340 and 341,

shown on pages 118 and 119; showing manner of arranging Window-frames for **Willer's Hinged Window-Stool and Removable Panel for Lower Pockets,** according to Figure 1, page 150, and Plan C, page 156.
Especially designed and adaptable for **Columbian and Standard Sliding Blinds, Classes A, B, H, J, Q and R.**

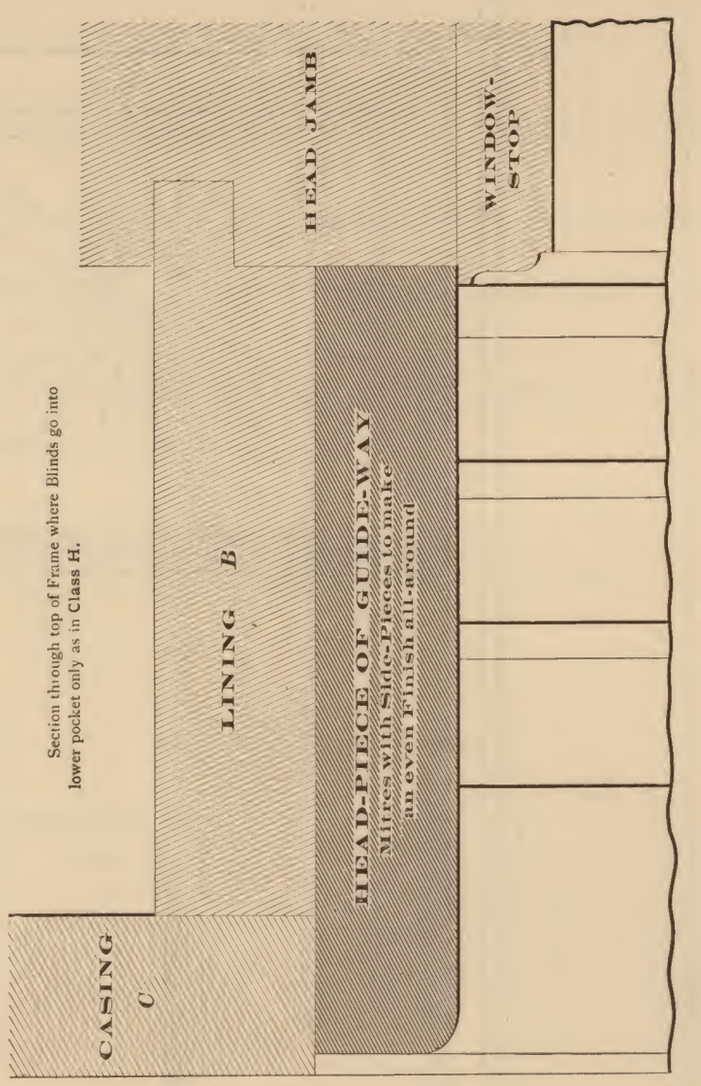


Full-Size Detail No. 51, being Full-Size Sections of Half-Size Details Nos. 342, 343, 344 and 345,

shown on pages 120, 121, 122 and 123; showing manner of arranging Window-frames for **Willer's Hinged Window-Stool and Removable Panel for Lower Pockets,** according to Figure 2, page 150, and Plan D, page 157.
Especially designed and adaptable for **Columbian and Standard Sliding Blinds, Classes A, B, H, J, Q and R.**

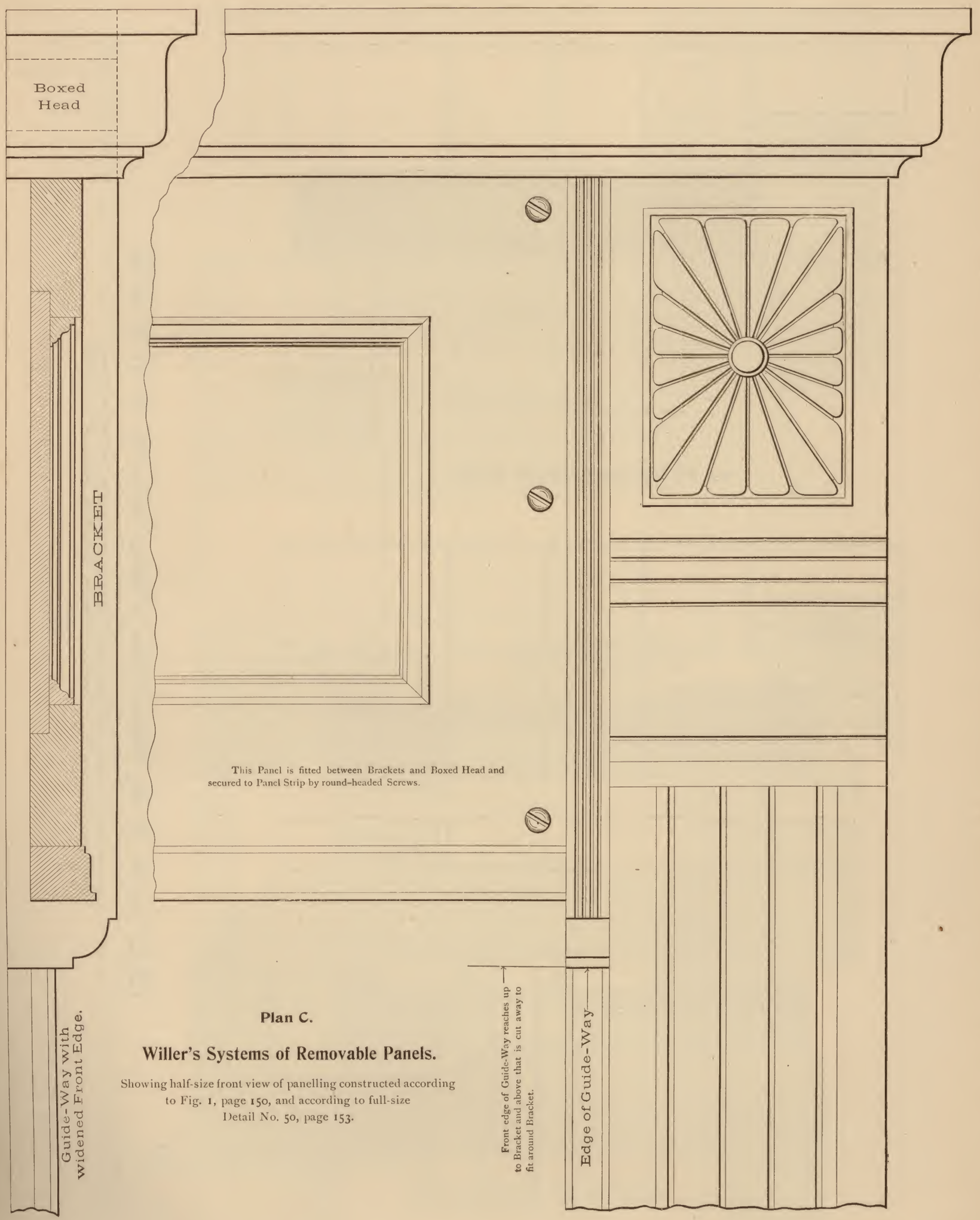


FULL SIZED DETAIL No. 51.



Full-Size Detail No. 51, being Full-Size Sections of Half-Size Details Nos. 342, 343, 344 and 345,

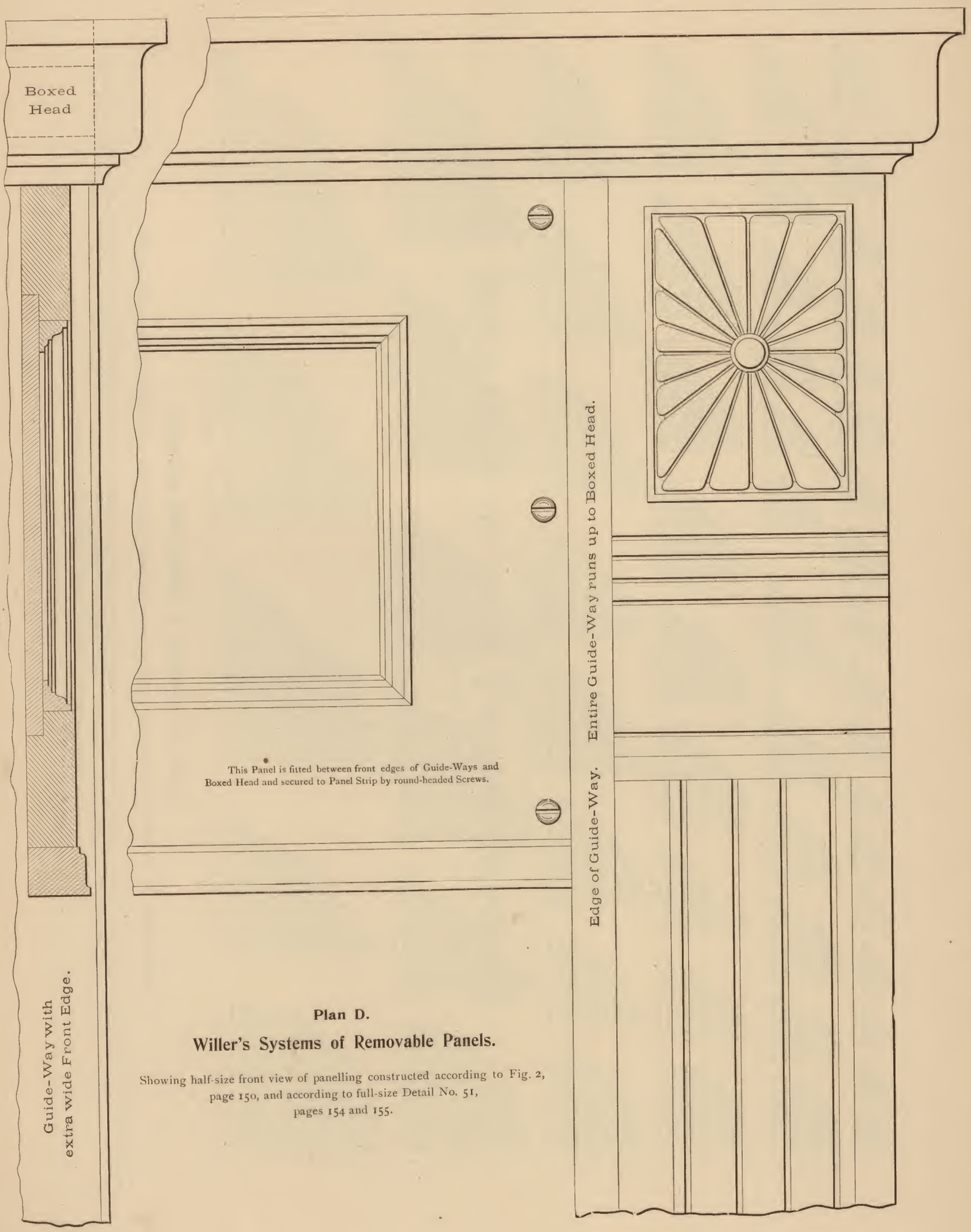
shown on pages 120, 121, 122 and 123; showing manner of arranging Window-frames for **Willer's Hinged Window-Stool and Removable Panel for Lower Pockets,** according to Figure 2, page 150, and Plan D, page 157.
Especially designed and adaptable for **Columbian and Standard Sliding Blinds, Classes A, B, H, J, Q and R.**



Plan C.

Willer's Systems of Removable Panels.

Showing half-size front view of panelling constructed according to Fig. 1, page 150, and according to full-size Detail No. 50, page 153.



Plan D.

Willer's Systems of Removable Panels.

Showing half-size front view of panelling constructed according to Fig. 2, page 150, and according to full-size Detail No. 51, pages 154 and 155.



Sections of Mouldings of Various Kinds and Sizes.

Specially designed for use where Guide-ways extend beyond the face of the inside casing or trim. See Details Nos. 240 and 241, page 110.

These Mouldings are not included in the price of Blinds. Wherever they are required, they must be ordered extra. We furnish them cut to lengths and finished to correspond to the window for which they are intended, or we will furnish them unfinished and in full lengths. These Mouldings, together with the Guide-ways, can be ordered shipped ahead of the Blinds, to enable the builder to "finish" his windows and put up blinds later.

Department of Inside Folding Blinds.

Pages 159 to 190.



Appearance of a Window fitted with Willer's Patent Folding Blind, further illustrated and described on pages 162 and 163. Patented Feb'y 10, 1885. The above shows a four-fold Blind, the two outside folds filled with Raised Panels, and the two inside folds with our Patent No-Rod Rolling Slats. Arrangement of Panels and Slats, No. 1029.

INSIDE FOLDING BLINDS.

THIS old and standard form of an Inside Blind is still in popular use all over the country and will always continue to be in demand. There are certain buildings for which this form of Blind seems most appropriate, for economical and other reasons, and there are certain windows in a residence or other building, for which a Folding Blind appears to be of better service than any other. Anyway, some people want these Blinds and we have as good facilities for making them as any other form of Blind.

We have made Folding Blinds for over 30 years, and are now making them in all imaginable styles, varieties and grades. The term "grades" does not indicate a state of quality—the quality of material and general workmanship being the same in all the different Blinds we make—but it indicates a different arrangement of Panels and Slats of different constructions; each succeeding grade, on account of such arrangement, being somewhat less expensive to produce than the preceding one. The question of cost has been the leading factor in devising these grades.

The following are the titles and technical terms of the different grades of Folding Blinds we make:

Willer's Patent Folding Blind,

Willer's Regular Folding Blind No. 1,

Willer's Regular Folding Blind No. 2,

Willer's Regular Folding Blind No. 3.

Our Prices of Folding Blinds.

OUR prices are based upon the following conditions:—**1st**, the size of window; **2nd**, the kind and grade of Blinds; **3rd**, the number of folds; **4th**, the kind of wood, and **5th**, the grade of finish wanted. Folding Blinds are figured per lineal foot in height, according to the number of folds in each set and the width of the window. Fractions of an inch are counted as one inch.

Two Fold Blinds are figured at a certain price per foot up to 2 feet wide.

Three Fold Blinds are figured at a certain price per foot up to 3 feet wide.

Four Fold Blinds are figured at a certain price per foot up to 3 feet wide, and at a proportionately higher price if over 3 feet and up to and including 4 feet wide.

Six Fold Blinds are figured at a certain price per foot up to 4 feet 6 inches wide, and at a proportionately higher price if over 4 feet 6 inches and up to and including 6 feet wide.

Eight Fold Blinds are figured at a certain price per foot up to 6 feet wide, and at a proportionately higher price if over 6 feet and up to and including 8 feet wide.

Willer's Patent Folding Blinds will be furnished only finished and not "in the white." All other grades of Folding Blinds will be furnished finished or unfinished.

Hardware for Folding Blinds is in no case included in price of blinds. Cost of such will be quoted separately upon our being furnished with a complete itemized list of what is required.

RULE GOVERNING THE NUMBER OF FOLDS IN A SET OF BLINDS.

The gross minimum width of each fold, including stiles, is 6 inches, and the maximum width 12 inches. Blinds ordered 2 folds must not be less than 1 foot and not over 2 feet wide; 3 folds not less than 1 foot 6 inches and not over 3 feet wide; 4 folds not less than 2 feet and not over 4 feet wide; 6 folds not less than 3 feet and not over 6 feet wide, and 8 folds not less than 4 feet and not over 8 feet wide.

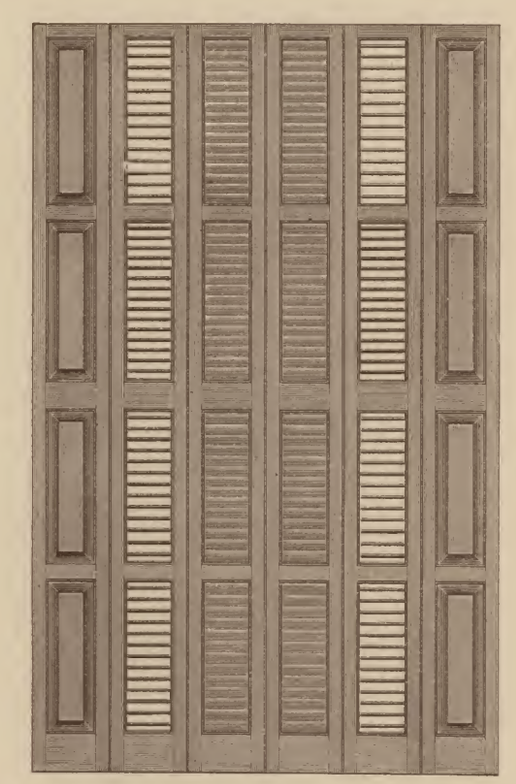
FOLDING BLINDS SHOULD BE CUT IN HEIGHT

so that the separation will come exactly opposite the centre of the check-rail in the window-sash. We do not do this cutting ourselves, but furnish the blinds with extra wide cross-rails at the places where they are to be cut. Very often only the inside folds are cut and separated and the outside folds left whole. Orders must in all cases distinctly show where blinds are to be cut.

WHERE FOLDING BLINDS FOLD INTO POCKETS AT THE SIDES, FULL-SIZE DRAWINGS OF THESE POCKETS MUST BE SENT US.

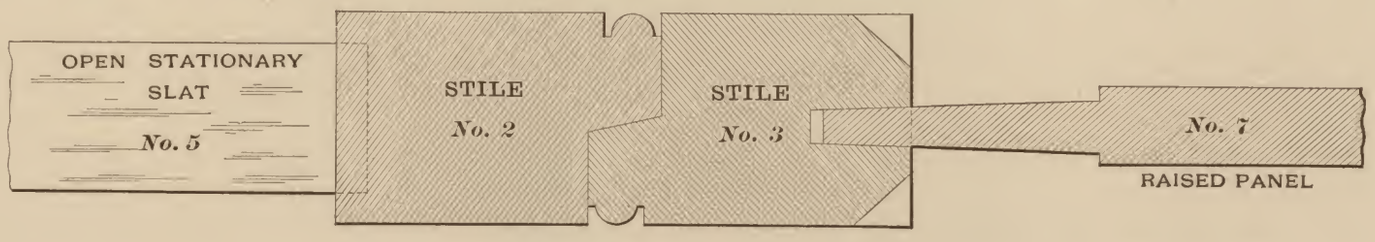
Printed Order Blanks, covering all grades of Folding Blinds, will be furnished upon application.

WILLER'S PATENT INSIDE FOLDING BLIND.

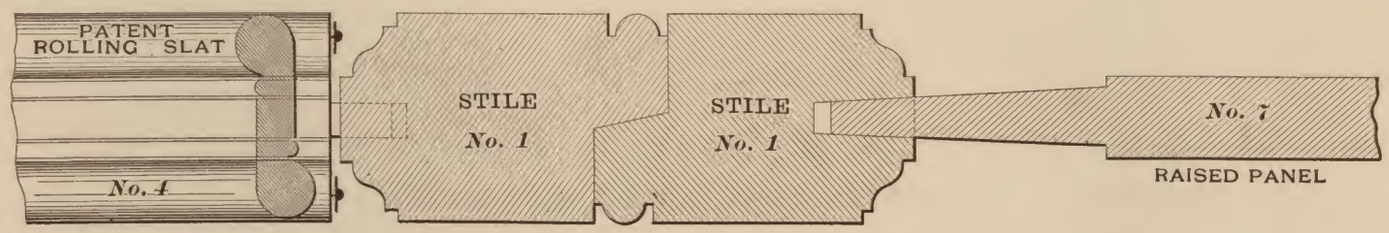


Appearance of a set of **Willer's Patent Folding Blinds,** 6 folds. Arrangement of Panels and Slats, No. 1052, showing a combination of Patent No-Rod Rolling Slats, Raised Panels, and Open Stationary Slats.

THIS is the best and the only grade of Folding Blinds we make in which we use our **Patent No-Rod Rolling Slats** (P. R. S.) in a part of or in the entire set of Blinds. When used in only a part of the set, the balance is filled with either **Raised Panels** (R. P.), or **Open Stationary Slats** (O. S. S.), or with a combination of both of these. This grade we do not furnish unfinished or "in the white." It is sold only finished complete, either Varnish, Cabinet or Polish Finish. We make these Blinds seven-eighths, one and one-sixteenth or one and one-eighth of an inch thick and in 2, 3, 4, 6 or 8 folds. The published prices on these Blinds do not include any hardware; this however we furnish upon special order, as elsewhere explained.



FULL-SIZE SECTIONS OF WILLER'S PATENT FOLDING BLIND.



No. 1.—Shape and form of Blind-stile as we furnish it for all our Folding Blinds, except where Open Stationary Slats are used.

No. 2.—Shape and form of Blind-stile (square edges) where spaces are filled with Open Stationary Slats.

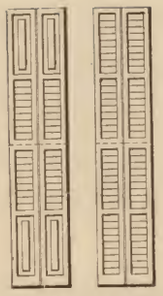
No. 3.—Shape and form of Blind-Stile (chamfered edges) used in connection with Raised Panels where such panels are combined with Open Stationary Slats in the same fold.

No. 4.—Front view and section of our Patent No-Rod Rolling Slat.

No. 5.—Top view of Open Stationary Slat.

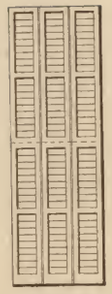
No. 7.—Vertical section of Raised Panel.

2 and 3 Folds.

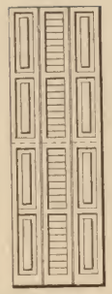


1000 4-R.P. 4-P. R. S.

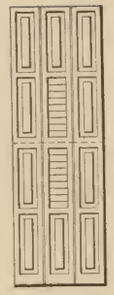
1001 8-P.R.S.



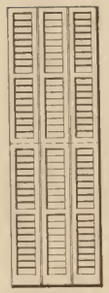
1012 12-P.R.S.



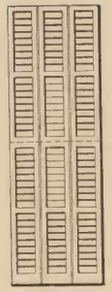
1013 8-R. P. 4-P. R. S.



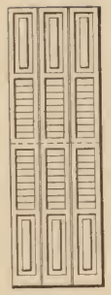
1014 10-R. P. 2-P. R. S.



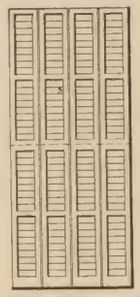
1015 8-O. S. S. 4-P. R. S.



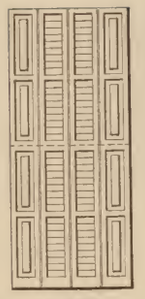
1016 10-O. S. S. 2-P. R. S.



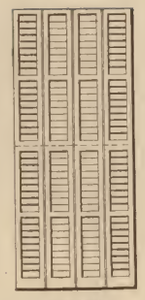
1017 6-R. P. 6-P. R. S.



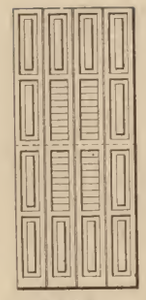
1028 16 Div. P. R. S.



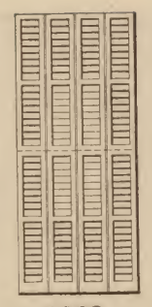
1029 8 Div. R. P. 8 Div. P. R. S.



1030 8 Div. O. S. S. 8 Div. P. R. S.



1031 12 Div. R. P. 4 Div. P. R. S.



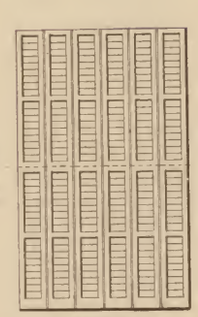
1032 12 Div. O. S. S. 4 Div. P. R. S.



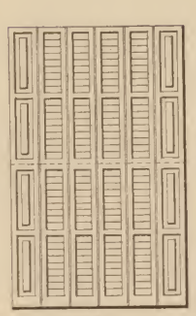
1033 8 Div. R. P. 8 Div. P. R S.

4 Folds.

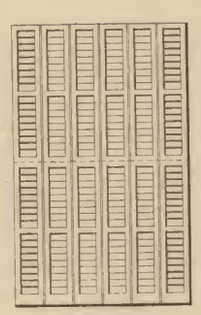
6 Folds.



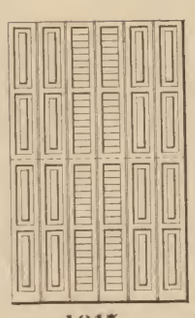
1044 24 Div. P. R. S.



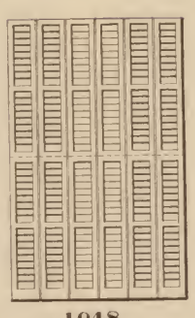
1045 8 Div. R. P. 16 Div. P. R. S.



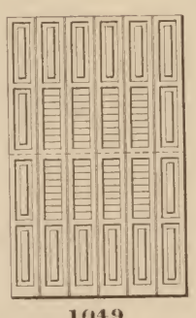
1046 8 Div. O. S. S. 16 Div. P. R. S.



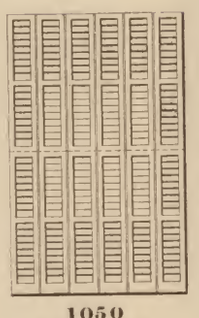
1047 16 Div. R. P. 8 Div. P. R. S.



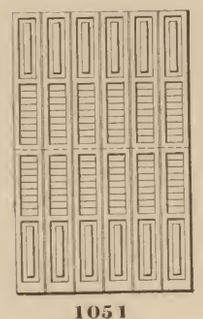
1048 16 Div. O. S. S. 8 Div. P. R. S.



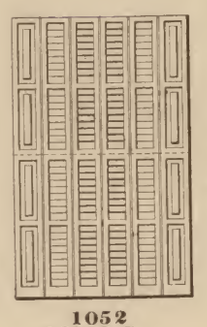
1049 16 Div. R. P. 8 Div. P. R. S.



1050 16 Div. O. S. S. 8 Div. P. R. S.



1051 12 Div. R. P. 12 Div. P. R. S.



1052 8 Div. R. P. 8 Div. O. S S. 8 Div. P. R. S.

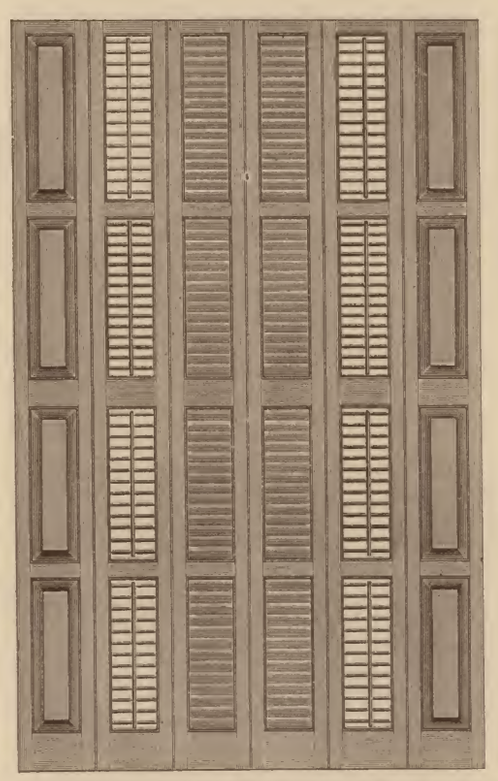
6 Folds.

Arrangement of Panels and Slats in Willer's Patent Inside Folding Blinds.

Spaces filled with an oblong square, have **Raised Panels** (R. P.); heavy cross-lines, **Open Stationary Slats** (O. S. S); light cross-lines, our **Patent Rolling Slats** (P. R. S.)

We do not show any arrangement or 8 Fold Blinds in any of our different grades of Folding Blinds, as these are but seldom required; whenever they are required, send us a sketch and full description of what is wanted with the order.

WILLER'S REGULAR FOLDING BLIND No. 1.

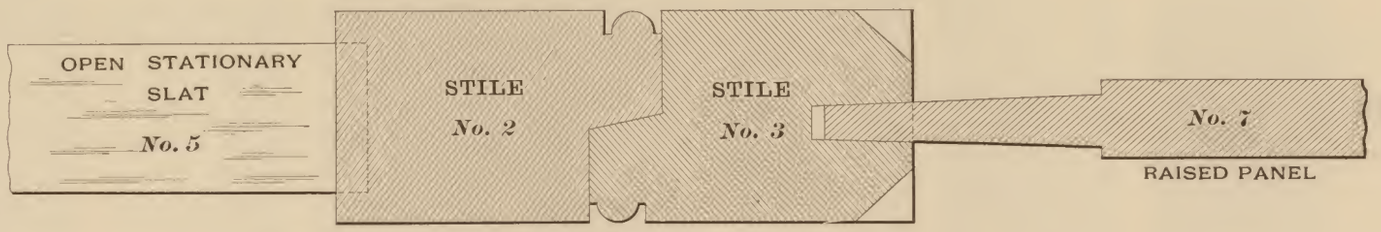


Appearance of a set of **Willer's Regular Folding Blinds, No. 1,** 6 folds. Arrangement of Panels and Slats, No. 1173, showing a combination of Regular Rolling Slats, Raised Panels and Open Stationary Slats.

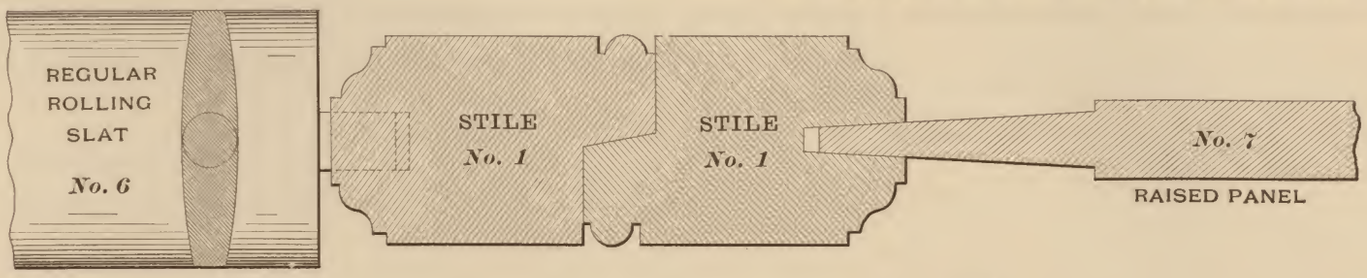
THIS grade has Regular Rolling Slats (R. R. S.), Open Stationary Slats (O. S. S.), or Raised Panels (R. P.) in a part of or in the entire set of blinds; or it has a combination of any two or all three of these.

This grade we furnish unfinished ("in the white") or finished complete in either Varnish, Cabinet or Polish Finish.

We make these Blinds seven-eighths, one and one-sixteenth or one and one-eighth inch thick, and in 2, 3, 4, 6 or 8 folds. The published prices on these blinds do not include any hardware; this however we furnish upon special order, as elsewhere explained.



FULL-SIZE SECTIONS OF WILLER'S REGULAR FOLDING BLIND No. 1.



No. 1—Shape and form of Blind-stile as we furnish it for all of our Folding Blinds, except where Open Stationary Slats are used.

No. 2—Shape and form of Blind-stile (square edges) where spaces are filled with Open Stationary Slats.

No. 3—Shape and form of Blind-stile (chamfered edges) used in connection with Raised Panels where such are combined with Open Stationary Slats in the same fold.

No. 5—Top view of Open Stationary Slat.

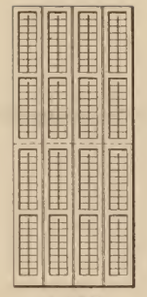
No. 6—Front view and section of Regular Rolling Slat.

No. 7—Vertical section of Raised Panel.

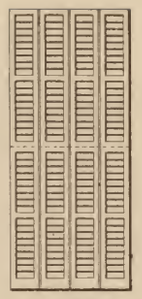
4 Folds.



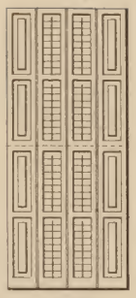
1137
16 Div. R. P.



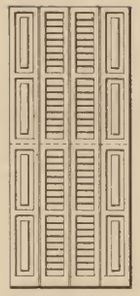
1138
16 Div. R. R. S.



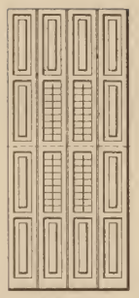
1139
16 Div. O. S. S.



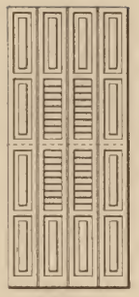
1140
8 Div. R. P.
8 Div. R. R. S.



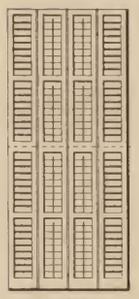
1141
8 Div. R. P.
8 Div. O. S. S.



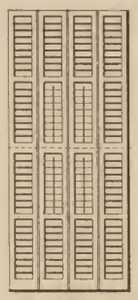
1142
12 Div. R. P.
4 Div. R. R. S.



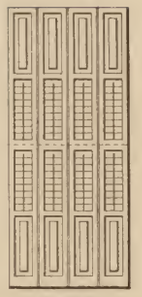
1143
12 Div. R P.
4 Div. O. S. S.



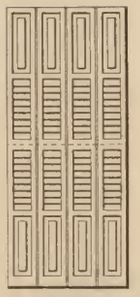
1144
8 Div. O. S. S.
8 Div. R. R. S.



1145
12 Div. O. S. S.
4 Div. R. R. S.



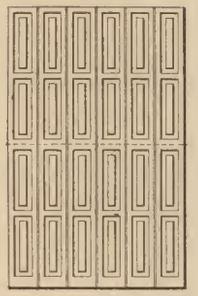
1146
8 Div. R. P.
8 Div. R. R. S.



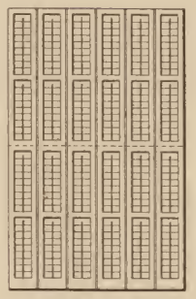
1147
8 Div. R. P.
8 Div. O. S. S.

4 Folds.

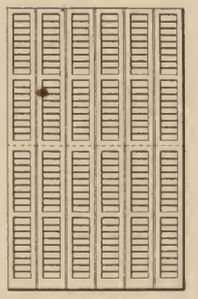
6 Folds.



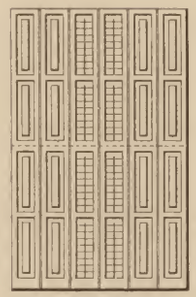
1159
24 Div. R. P.



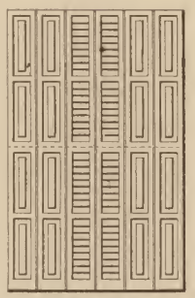
1160
24 Div. R. R. S.



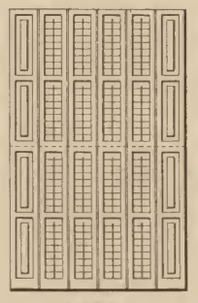
1161
24 Div. O. S. S.



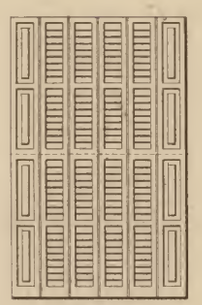
1162
16 Div. R. P.
8 Div. R. R. S.



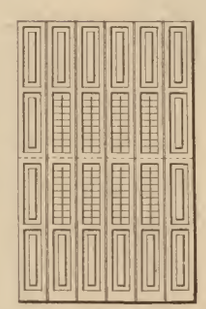
1163
16 Div. R. P.
8 Div. O. S. S.



1164
8 Div. R. P.
16 Div. R. R. S.

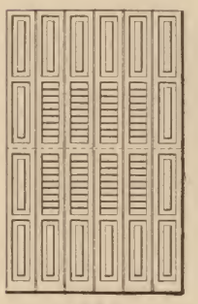


1165
8 Div. R. P.
16 Div. O. S. S.

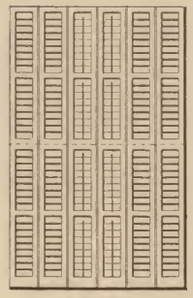


1166
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8 Div. R. R. S.

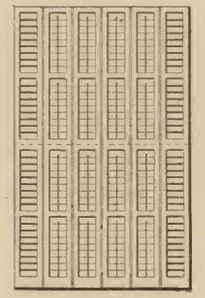
6 Folds.



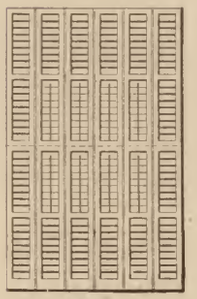
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16 Div. R. P.
8 Div. O. S. S.



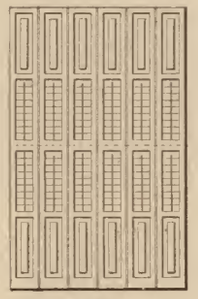
1168
16 Div. O. S. S.
8 Div. R. R. S.



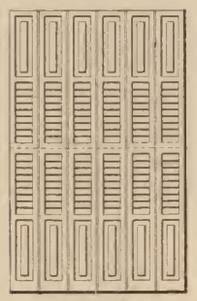
1169
8 Div. O. S. S.
16 Div. R. R. S.



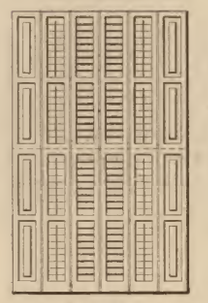
1170
16 Div. O. S. S.
8 Div. R. R. S.



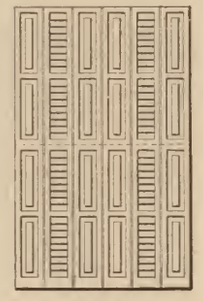
1171
12 Div. R. P.
12 Div. R. R. S.



1172
12 Div. R. P.
12 Div. O. S. S.



1173
8 Div. R. P.
8 Div. O. S. S.
8 Div. R. R. S.



1174
16 Div. R. P.
8 Div. O. S. S.

6 Folds.

Arrangement of Panels and Slats in Willer's Regular Folding Blinds No. 1.

Spaces filled with an oblong square, have **Raised Panels** (R. P.); heavy cross-lines, **Open Stationary Slats** (O. S. S.); light cross-lines with one perpendicular line, **Regular Rolling Slats** (R. R. S.) with wooden rod in front.

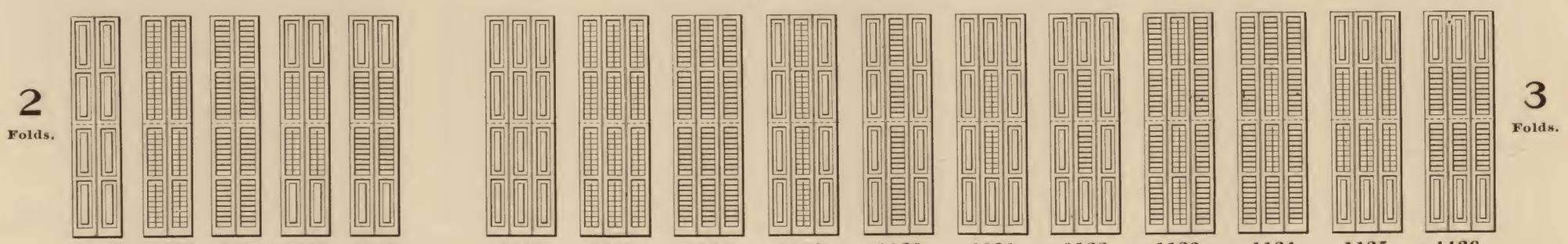
SOMETHING ABOUT THE

FINISHING OF FOLDING BLINDS.

THE WILLER Patent Folding Blind is sold finished only. All other grades of Folding Blinds we furnish finished or unfinished. We furnish these unfinished also for the reason that so many specifications call for the Blinds to be supplied by the carpenter-contractor and to be finished by the painter-contractor. With the exceptional facilities, however, that we are necessarily required to have for the finishing of our Sliding and Venetian Blinds, Door and Window Screens, all of which are sold finished only, the quality and quantity of material and labor we use and employ in this department of our business—we are in a position to finish our Blinds more satisfactorily than most of the contractors, and we urge, therefore, that whenever possible, we be allowed to furnish all of our Blinds finished complete. This can easily be accomplished if the architect in the carpenter's part of the specifications states that the Blinds are to be purchased from the factory finished complete and also mentions this fact in the painter's part of the same specification.

Where we supply finished Folding Blinds, the outer edges around Blinds and also where cut, must be finished by others after Blinds are hung.

Special Order Blanks, giving Complete Instructions for Ordering all kinds of Folding Blinds, will be furnished upon application. We require all orders sent us written on these Blanks.



Arrangement of Panels and Slats in Willer's Regular Folding Blinds No. 1.

Spaces filled with oblong squares, have **Raised Panels** (R. P.); heavy cross-lines, **Open Stationary Slats** (O. S. S.); light cross-lines with one perpendicular line, **Regular Rolling Slats** (R. R. S.) with wooden rod in front.



A SERIES OF BROOKLYN, N. Y., BUILDINGS,

Furnished with Willer Blinds or Screens.

Residence of Mr. Charles Engert,
Bedford Avenue, near Rodney Street, Brooklyn.
F. J. Berlenbach, Jr., Architect, 260 Graham Avenue, Brooklyn.

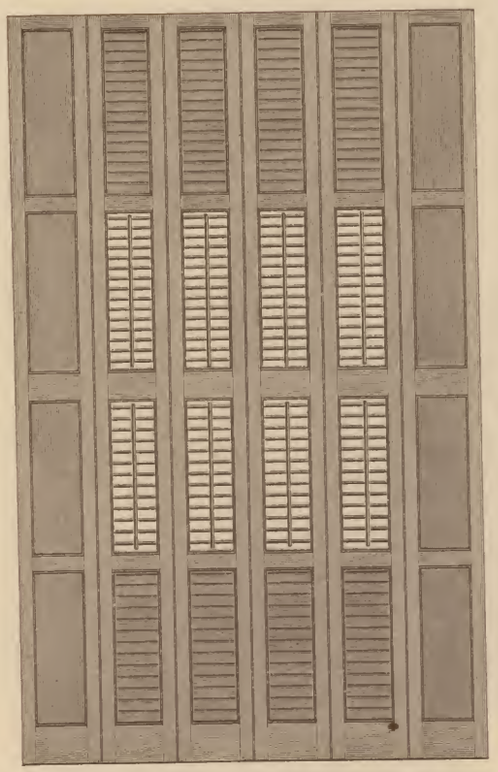
Residence of Mr. Gustave Durschuch,
Bedford Avenue, Brooklyn.
Th. Engelhardt, Architect, 905 Broadway, Brooklyn.

Residence of Mr. E. Lohman,
Bensonhurst, Brooklyn.
Parfitt Bros., Architects, 24 Court Street, Brooklyn.

Residence of Mr. John Hill,
St. Mark's Ave., near Nostrand Ave., Brooklyn.
Geo. P. Chappell, Architect, 24 State Street, New York City.

Residences of Messrs. P. H. Dwyer and Robert Furey,
8th Ave., Cor. of St. John's Place, Brooklyn.
John Mumford, Architect, Real Estate Exchange Building, Montague St., Brooklyn.

WILLER'S REGULAR FOLDING BLIND, No. 2.



Appearance of a set of **Willer's Regular Folding Blinds, No. 2,** 6 folds. Arrangement of Panels and Slats, No. 1252, showing a combination of Regular Rolling Slats, Flat Panels and Closed Stationary Slats.

THIS grade has **Regular Rolling Sats** (R. R. S.) in only a part of the entire set of blinds; the balance of the spaces being filled with either **Flat Panels** (F. P.) or **Closed Stationary Slats** (C. S. S.), or a combination of both of these.

This grade we furnish unfinished ("in the white") or finished complete in either Varnish, Cabinet or Polish Finish. We make these blinds seven-eighths, one and one-sixteenth or one and one-eighth inch thick, and in 2, 3 4, 6 or 8 folds. The published prices do not include any hardware; this however we furnish upon special order, as elsewhere explained.

FULL-SIZE SECTIONS OF

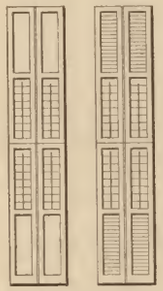
WILLER'S REGULAR FOLDING BLIND, No. 2.

No. 1—Shape and form of Blind-stile (⅞ inch thick) as furnished in this grade. For section of 1⅛ inch thick blind, see Regular Folding Blind No. 1, page 164.

No. 6—Front view and section of Regular Rolling Slat.

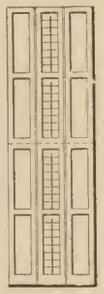
No. 8—Vertical section of Flat Panel and of Closed Stationary Slat.

2 and 3 Folds.



1200
4-F. P.
4-R. R. S.

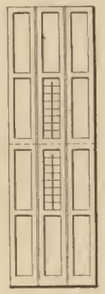
1201
4-C. S. S.
4-R. R. S.



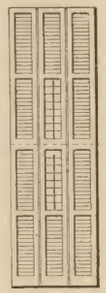
1212
8-F. P.
4-R. R. S.



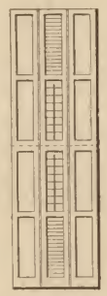
1213
8-C. S. S.
4-R. R. S.



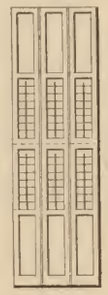
1214
10-F. P.
2-R. R. S.



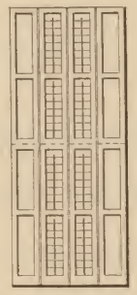
1215
10-C. S. S.
2-R. R. S.



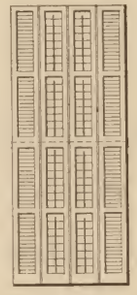
1216
8-F. P.
2-C. S. S.
2-R. R. S.



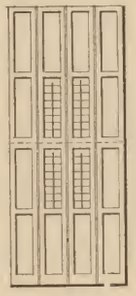
1217
6-F. P.
6-R. R. S.



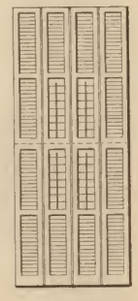
1228
8-F. P.
8-R. R. S.



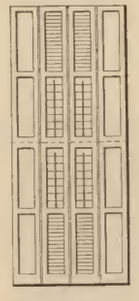
1229
8-C. S. S
8-R. S. S.



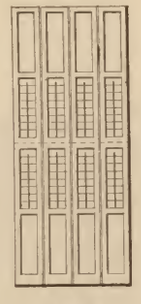
1230
12-F. P.
4-R. R. S.



1231
12-C. S. S.
4-R. R. S



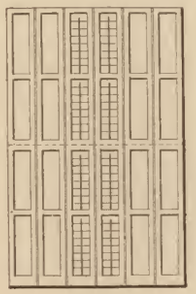
1232
8-F. P.
4-C. S. S.
4-R. R. S.



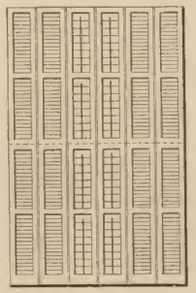
1233
8-F. P.
8-R. R. S.

4 Folds.

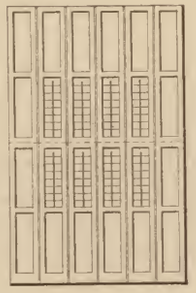
6 Folds.



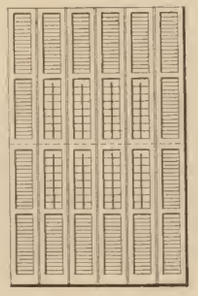
1244
16 Div. F. P.
8 Div. R. R. S.



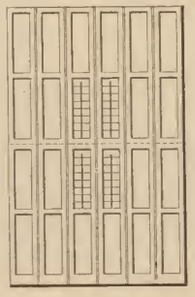
1245
16 Div. C. S. S.
8 Div. R. R. S.



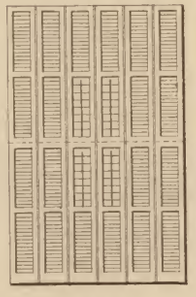
1246
16 Div. F. P.
8 Div. R. R. S.



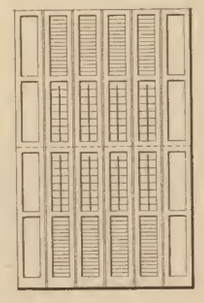
1247
16 Div. C. S. S.
8 Div. R. R. S.



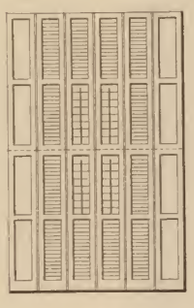
1248
20 Div. F. P.
4 Div. R. R. S.



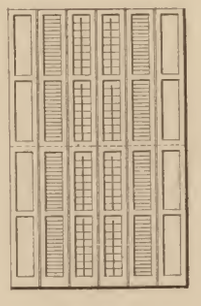
1249
20 Div. C. S. S.
4 Div. R. R. S.



1250
8 Div. F. P.
8 Div. C. S. S.
8 Div. R. R. S.



1251
8 Div. F. P.
12 Div. C. S. S.
4 Div. R. R. S.



1252
8 Div. F. P.
8 Div. C. S. S.
8 Div. R. R. S.

Arrangement of Panels and Slats in Willer's Regular Folding Blinds No. 2.

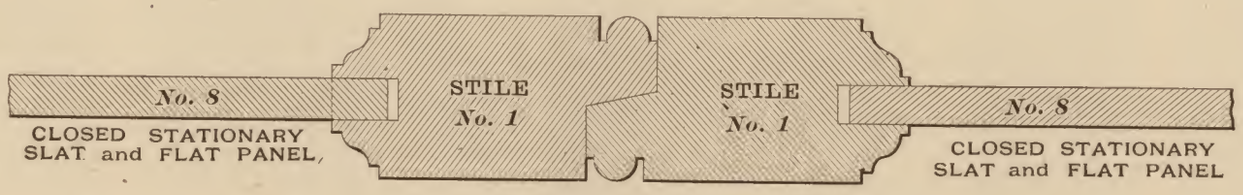
Blank spaces, have **Flat Panels** (F P.); narrow cross-lines, **Closed Stationary Slats** (C. S. S.); light cross-lines with one perpendicular line, **Regular Rolling Slats** (R. R. S.) with wooden rod in front.

WILLER'S REGULAR FOLDING BLIND No. 3.



Appearance of a set of **Willer's Regular Folding Blinds, No. 3,** 4 folds. Arrangement of Panels and Slats, No. 1330, showing a combination of Flat Panels and Closed Stationary Slats.

THIS grade has **Closed Stationary Slats** (C. S. S.), or **Flat Panels** (F. P.), in either a part of or in the entire set of Blinds, or a combination of both of these, no Rolling Slats whatever being used therein. We furnish it to supply a demand for a cheap Inside Folding Shutter. This grade we furnish unfinished ("in the white") or finished complete in either Varnish or Cabinet Finish. We make these shutters seven-eighths, one and one-sixteenth or one and one-eighth of an inch thick, and in 2, 3, 4, 6 and 8 folds. The published prices do not include any hardware; this however we furnish upon special order, as elsewhere explained.

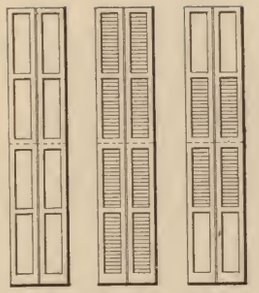


FULL-SIZE SECTIONS OF WILLER'S REGULAR FOLDING BLIND No. 3.

No. 1.—Shape and form of Blind-stile (⅞ inch thick) as furnished in this grade. For section of 1⅛ inch thick Blind, see Regular Folding Blind, No. 1, page 164.

No. 8.—Vertical Section of Flat Panel and of Closed Stationary Slat.

2 and 3 Folds.



1300 8-F. P.

1301 8-C. S. S.

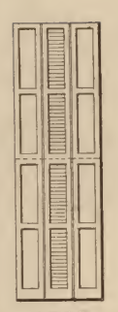
1302 4-F. P. 4-C. S. S.



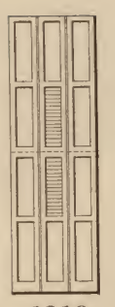
1313 12-F. P.



1314 12-C. S. S.



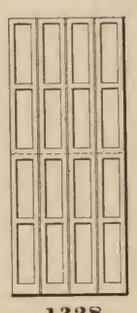
1315 8-F. P. 4-C. S. S.



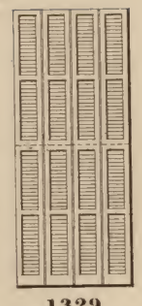
1316 10-F. P. 2-C. S. S.



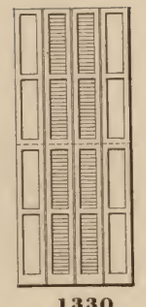
1317 6-F. P. 6-C. S. S.



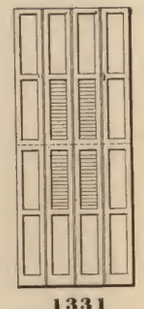
1328 16 Div. F. P.



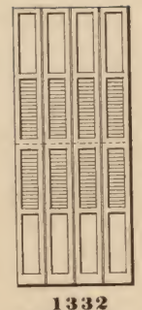
1329 16 Div. C. S. S.



1330 8 Div. F. P. 8 Div. C. S. S.



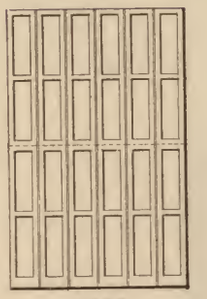
1331 12 Div. F. P. 4 Div. C. S. S.



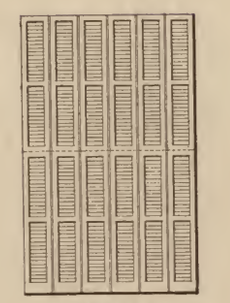
1332 8 Div. F. P. 8 Div. C. S. S.

4 Folds.

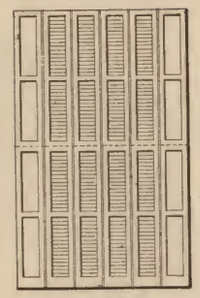
6 Folds.



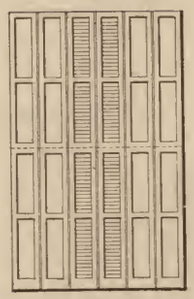
1343 24 Div. F. P.



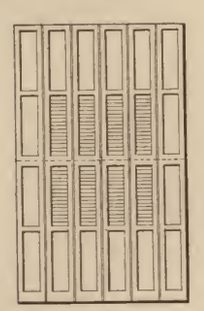
1344 24 Div. C. S. S.



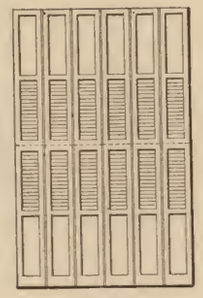
1345 8 Div. F. P. 16 Div. C. S. S.



1346 16 Div. F. P. 8 Div. C. S. S.



1347 16 Div. F. P. 8 Div. C. S. S.



1348 12 Div. F. P. 12 Div. C. S. S.

6 Folds.

Arrangement of Panels and Slats in Willer's Regular Folding Blinds No. 3.

Blank Spaces have **Flat Panels** (F. P.); narrow cross-lines. **Closed Stationary Slats** (C. S. S.).



A SERIES OF NEW JERSEY BUILDINGS,

Furnished with Willer Blinds or Screens.

Residence of Mr. Carhuff,
Orchard Street, near Camp Street, Newark, N. J.
Paul G. Botticher, Architect, 751 Broad Street, Newark, N. J.

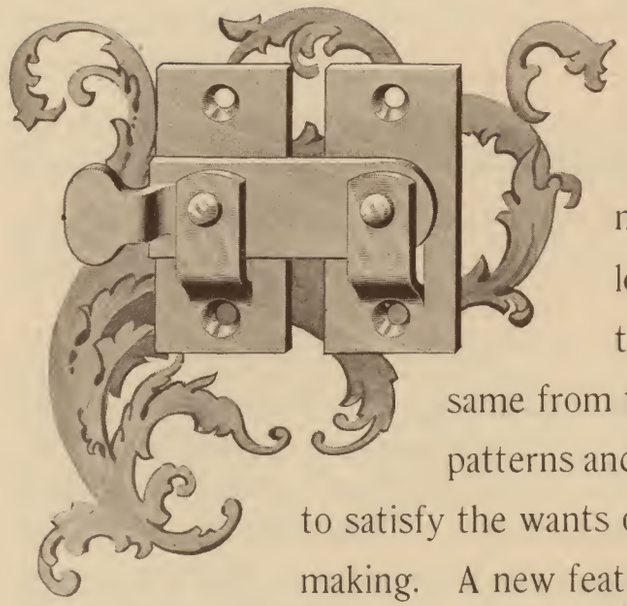
Residence of Mr. Edw. Phillips,
Cor. of Pennington and Aycriff Aves., Passaic, N. J.
Stanley S. Covert, Architect, 19 Park Place, New York City.

Residence of Mr. A. A. Clark,
Somerville, New Jersey.
Chas. A. Smith, Architect, 191 Broadway, New York City.

Residence of Mr. Jacob W. Eye,
Gifford Place, betw. Boulevard and Bergen Ave., Jersey City, N. J.
Dehli & Chamberlain, Architects, 874 Broadway, New York City and 259 Washington Street, Jersey City, N. J.

Residence of Mr. O. H. Perry,
Bergen Ave., off Gifford Place, Jersey City Heights, N. J.
Blau & Quaife, Architects, 709 Grand Street, Jersey City, N. J.

Hardware for Inside Folding Blinds.



WE have made special arrangements with the leading manufacturers of Builders' Hardware, whereby they will supply us with Hardware for Inside Folding Blinds at special prices, placing us in a position to hereafter furnish such hardware in connection with Folding Blinds ordered from us, at prices as low as those of any dealer. On the following pages we offer an assortment such as, to our knowledge, has never before been published in one catalogue. In selecting the same from the Catalogues of the different manufacturers, we have not aimed to select the best patterns and most beautiful designs only, but to make the assortments so varied and complete as to satisfy the wants of all of our patrons, and to conform to the different grades of Folding Blinds we are making. A new feature is the arrangement of each manufacturer's goods by sets, grouping such hinges, butts, bars, etc., as are of one design, together on one page.

In arranging these pages, we were obliged, for obvious reasons, to adopt the printed terms, technical expressions, titles, description of finishes, etc., for each set of hardware as are in use by the respective manufacturer of such goods. The different manufacturers have each a different system of listing and pricing their goods, and we therefore refrain from publishing their prices as they would be no correct representation of the comparative value of the different goods. Special net prices will be supplied upon application in connection with requests for estimates on Folding Blinds. All requests for prices must be accompanied by an itemized list of the hardware wanted.

We do not carry this Hardware in stock, supplying it upon special order only. Orders for these goods should therefore be sent us with the order for Blinds, so as to enable us to procure these goods in time and ship them together with the Blinds.

HARDWARE FOR INSIDE FOLDING BLINDS.

SPECIAL FINISHES.

THE Hardware, as listed and described on the following pages, are in Finishes as they are usually supplied and kept in stock by the manufacturers. Most all of these can, however, be furnished in any other Finish, and we print herewith a complete list of the Special Finishes in which each of the different sets can be supplied upon special order and at special prices. In describing the different Finishes of each set, we use the same terms as adopted by the different manufacturers, so as to avoid any misunderstanding when ordering goods from them.

Set A. Page 176. These, being goods having only a "planished" (an unfinished, not polished nor ground) surface, can not be supplied in any other Finishes than Bronze and Nickel-Plated. The Standard Finish for this set is Bronze-Plated.

Set B. Page 177. This set, being goods having a "polished" surface, can be supplied in any of the following Finishes: A—Standard Light Bronze; B—Dark Bronze; C—Brass; D—Copper; D1—Copper Oxidized, light center; D2—Copper Oxidized, light mottled; D3—Copper Oxidized, dark mottled; D4—Copper Oxidized, diagonally streaked; E—Silver Oxidized, light; E1—Silver Oxidized, dark, steel-blue; E2—Silver Oxidized, dark, light center; E3—Silver Oxidized, mottled; F—Old Brass, not shaded; F1—Antique Brass, shaded dark blue and brass; F2—Antique Brass, shaded dark bronze and brass; G—Bower-Barff; H—Dead Black, electro-plate; K—Boston Finish; N—Nickel-Plated. All these Finishes are electro-plated on cold rolled steel. When ordering any of these Finishes, let the symbol follow the number of the article wanted, as No. 289½ D1. Any of the foregoing can also be had in Sand Finish, by using the letter S as a prefix to the symbol or letter denoting the style of plating, as No. 289½ S D1.

Set C. Page 178. The genuine Bronze Metal goods in this set can be had in the following Finishes, each different Finish being distinguished by prefixed letters: A—Antique or Statuary Bronze; A B—Antique Copper; A S—Antique Silver; C B—Clouded Antique Copper; C S—Clouded Antique Silver; F—Clouded Bronze; L B—Light Antique Copper; L S—Light Antique Silver; O S—Oxidized Silver; D B—Antique Brass Finish, dark; O B—Old Brass, light finish; G—Gold-Plated on Bronze; H—Hand-Plated (Silver) on Bronze or Brass; N—Nickel-Plated; S—Electro Silver-Plated; R—Sand Finished on natural color Bronze Metal; R B—Sand Finished, Antique Copper; R O—Sand Finished, Antique Silver; R S—Sand Finished, Light Silver. The terminal P for goods in this set stands for "Plain Bronze Metal," and refers only to the design. When ordering any of the above Special Finishes, simply use the above letters as a prefix to the article wanted. For instance, if you want the 830 P (Plain Bronze Metal, Natural) Butt in Oxidized Silver Finish, this particular article is designated as O S 830 P. Prices for any Special Finish upon application.

Set D. Page 179. The standard Finish for the goods in this set is Genuine Bronze Metal, polished raised surfaces, with a chocolate brown background, and is designated by the prefix C. The terminal E simply stands for the design. Other Finishes may be ordered by using the following letters (instead of C) as a prefix: M—Black Background, raised surfaces in polished natural color; D—Nickel Background, raised surfaces in polished natural color; N—Nickel-Plated; G—Gold-Plated; S—Electro Silver-Plated; A—Antique or Statuary Dark Bronze; A B—Antique Copper; A S—Antique Silver; L B—Light Antique Copper; L S—Light Antique Silver; O S—

Oxidized Silver. Without any prefix, the goods will be furnished in the natural color of the metal. Prices for any Special Finish supplied upon application.

Set E. Page 180. The standard Finishes for the goods in this set are those described. The Bronze Metal goods in this set can be furnished in any of the Special Finishes described in Set D, by using the same letters as a prefix. The terminal A in this set simply stands for the design.

Set F. Page 181. This set is not furnished in any other Finishes than those described.

Set G. Pages 182 and 183. This set is not furnished in any other Finishes than those described.

Sets H, I, J and K. Pages 184 and 185. These four sets are of one manufacturer, and besides the Finishes named, can be furnished in any of the following Special Finishes: No. 5—Nickel-Plated; No. 7—Nickel-Plated Surface with Gold-Plated Background; No. 8—Gold-Plated; No. 19—Oxidized Silver; No. 20—Old Brass; No. 21—Oxidized Iron; No. 22—Antique Copper.

Set L. Page 186. The standard Finish for the goods in this set is Antique Copper, and this Finish is supplied on both Iron and Bronze Metals. Upon special order, any of the following Finishes will be furnished without additional cost, in Bronze or Brass Metal only: Natural Copper, Statuary Copper, Dull Copper, Antique Brass, Natural Brass, Dull Brass, Dark Steel Bronze, Dull Bronze and Gold Bronze (natural color of metal). Oxidized Silver Finish can also be furnished at extra cost.

Set M. Page 187. The standard Finish for the goods in this set is Gold Bronze (natural color of metal). These goods can also be furnished in Antique Copper and Oxidized Silver Finish at extra cost.

M1, M2, M3, M4. Page 188. There are four different styles and designs of Shutter Bars and Knobs, for which the manufacturer makes no special Butts and Hinges to match. They will therefore have to be ordered in connection with Butts of some other set; they will go well with the plain Butts shown in Set L, which are also made by the same manufacturer. The standard Finish for the Plain, Ribbon and Fluted Patterns, M1, M2 and M3, is Gold Bronze, which, however, can also be furnished in Antique Copper and Oxidized Silver Finish, at extra cost. The standard Finish for the La Grande Design, M4, is Antique Copper or Bronze. This, however, can also be supplied in any of the Finishes shown in Set L, without extra cost, with the exception of Oxidized Silver Finish, which costs extra. The plain Butts shown in Set M, when ordered in connection with these Bars and Knobs, will be supplied of a Finish to match the Finish ordered for M4.

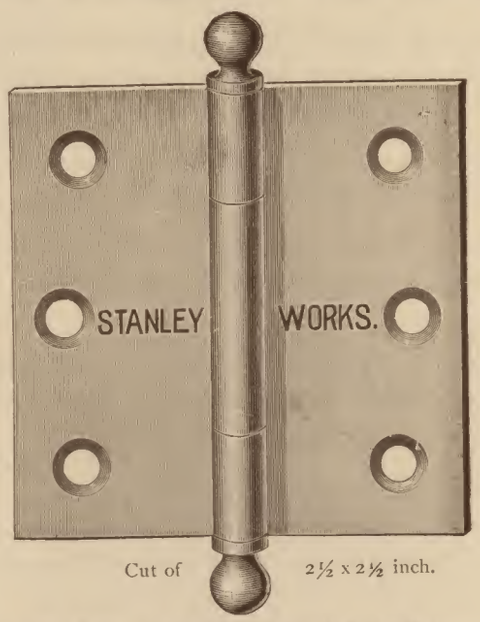
Set N. Page 189. The standard Finishes for this set are those described. The following additional Finishes can be supplied on Bronze or Brass Metal: Nickel-Plated, Cast Brass, Gold and Silver-Plated, Old Copper. Old Copper Finish can also be supplied on Iron Metal.

Set O. Page 190. The standard Finish for the goods in this set is Hecla Bronze, genuine bronze metal, polished raised surfaces, with a steel-gray background. This set can also be furnished, without additional cost, in Chocolate Bronze, with a chocolate brown background, and in Gold Bronze, natural color of metal throughout.

Willer's Selection of Hardware for Inside Folding Blinds.

Set A. Stanley Works' Wrought Steel Goods. Bronze Plated—"Planished" Surfaces.

These goods are wrought out of Cold Rolled Steel and are practically unbreakable. This set has been especially selected as a plain, cheap and durable set for use on Regular Folding Blinds, where no extra or special finish is required. These goods are electro-plated Light Bronze and the surface is "planished," meaning a fairly smooth surface, but not "ground" or "polished." For "polished" surface goods, see set B, on next page.

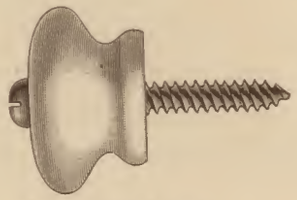


Cut of 2½ x 2½ inch.

No. 289. Light Inside Blind Butts.

Loose Pin. Ball Tips.

Size open,	2 x 2	2½ x 2	2½ x 2½	3 x 2½
Price, per pair,	.....	.....	.....	.....

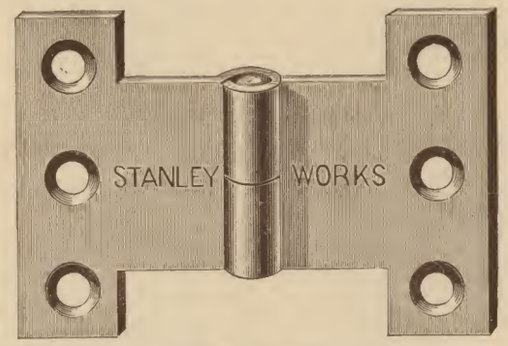


Cut of 1 inch.

No. 10. Porcelain Shutter Knobs.

Round Head Bronzed Screw.

Size,	1	1⅛	1¼
Price, per dozen,	.....	.....	.....

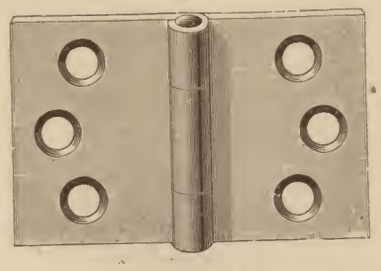


Cut of 2½ inch.

No. 274. Light Parliament Butts.

Loose Joint.

Width, open,	2½	3	3½	4
Price, per pair,	.....	.....	.....	.....

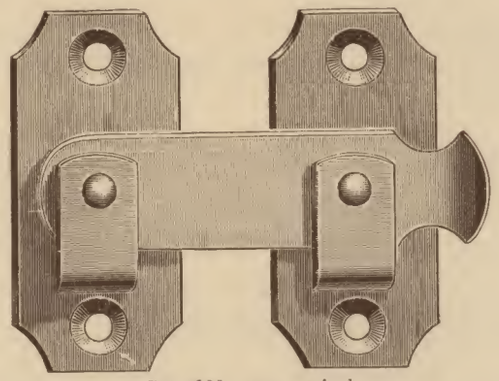


Cut of 1¼ inch.

No. 332. Light Inside Blind Butts.

Fast Joint. Square Edges.

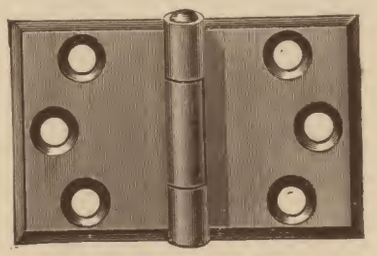
Size,	1¼	1½	1¾
Price, per pair,	.....	.....	.....



Cut of No. 450. 2 inch.

No. 450. Reversible Shutter Bars.

Size, 2 inch, per pair, ...



Cut of 1¼ inch.

No. 333. Light Inside Blind Butts.

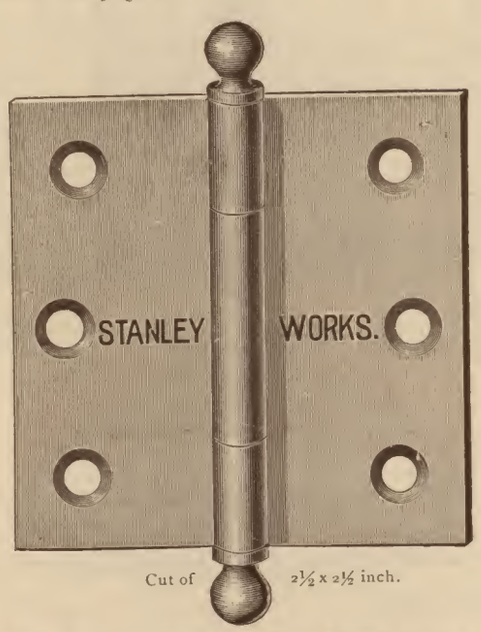
Fast Joint. Beveled Edges.

Size,	1¼	1½	1¾
Price, per pair,	.....	.....	.....

Willer's Selection of Hardware for Inside Folding Blinds.

Set B. Stanley Works' Wrought Steel Goods. Bronze-Plated—"Polished" Surfaces.

These goods are wrought out of Cold Rolled Steel and are practically unbreakable. Those listed on this page are electro-plated Light Bronze, and have polished surfaces, comparing favorably with the surfaces of the best grades of polished bronze-metal hardware. All of these goods can also be had in various other special finishes, for description of which see page 174.

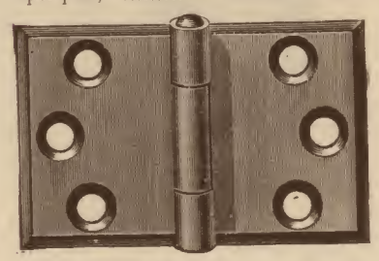


Cut of 2½ x 2½ inch.

No. 289½. Light Inside Blind Butts.

Loose Pin. Ball Tips.

Size, open, ...	2 x 2	2½ x 2	2½ x 2½	3 x 2½
Price, . . per pair,	.....	.....	.....	.....

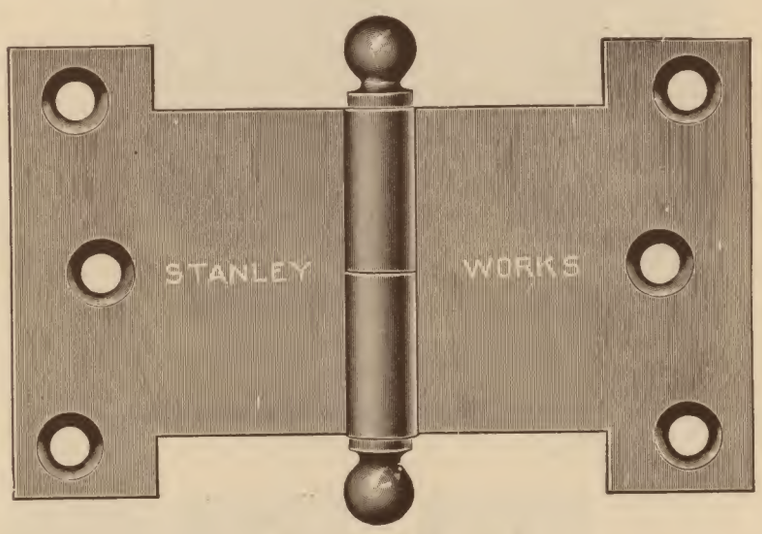


Cut of 1¼ inch.

No. 333½. Light Inside Blind Butts.

Fast Joint. Beveled Edges.

Size, ...	1¼	1½	1¾
Price, ... per pair,	.....	.....	.....

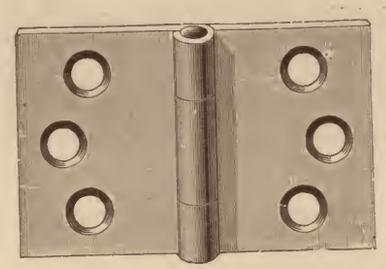


Cut of 4 inch.

No. 255. Parliament Butts.

	Loose Joint.	Ball Tips.		
Width, open, ...	2½	3	3½	4
Price, . . per pair,	.....	.....	.....	.....

These can also be had 4½, 5, 5½, 6, 7 and 8 inches wide, open, where required.

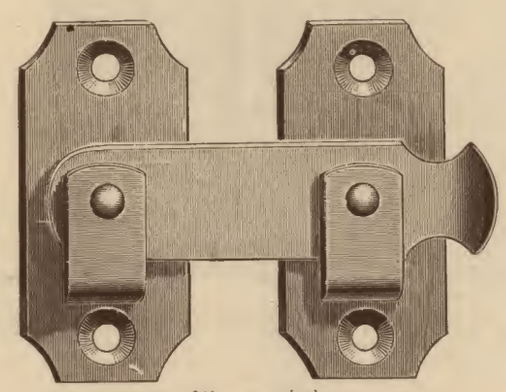


Cut of 1¼ inch.

No. 331. Light Inside Blind Butts.

Fast Joint. Square Edges.

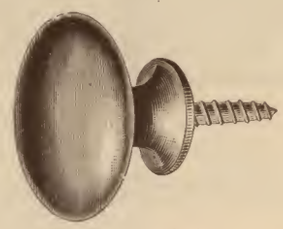
Size, ...	1¼	1½	1¾
Price, ... per pair,	.....	.....	.....



Cut of No. 452—2 inch.

No. 452. Reversible Shutter Bars.

Size, 2 inch, ... per pair, ...



Cut of 1⅛ inch.

No. 13900. Shutter Knobs.

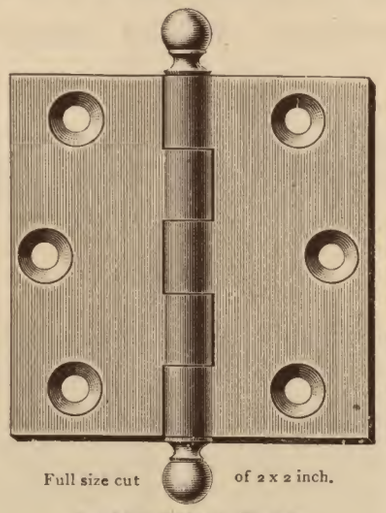
This Shutter Knob is of Genuine Bronze Metal.

Size, ...	1	1⅛
Price, ... per dozen,	.....	.....

Willer's Selection of Hardware for Inside Folding Blinds.

Set C. Plain Design. Iron and Bronze Metals. Packed with Screws to Match.

These goods can also be had in various other special finishes, for description of which see page 174.



Full size cut of 2 x 2 inch.

Inside Blind Butts.

Loose Pin. Ball Tips.

No. BB 830—Iron, Bower-Barff Finish.

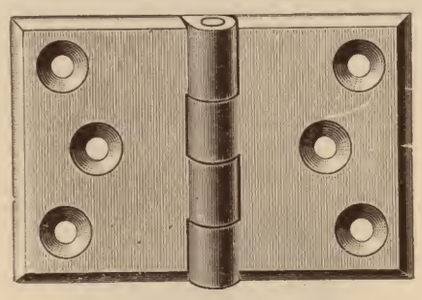
Size, open	2 x 2	2½ x 2	2½ x 2½
Price, per pair,	.....	.....	.....

No. 830 P—Bronze Metal, Polished.

Size, open,	2 x 2	2½ x 2	2½ x 2½
Price, per pair,	.....	.....	.....

No. AB 830 P—Bronze Metal, Antique Copper Finish.

Size, open,	2 x 2	2½ x 2	2½ x 2½
Price, per pair,	.....	.....	.....



Full size cut of 1½ x 2¼ inch.

Inside Blind Butts.

Fast Joint. Beveled Edges.

No. BB 813—Iron, Bower-Barff Finish.

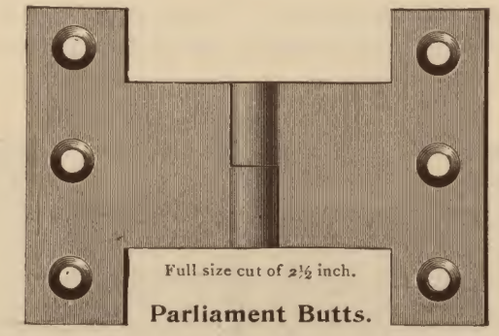
Size, open,	1¼ x 2	1½ x 2¼	2 x 2½
Price, per pair,	.....	.....	.....

No. 813 P—Bronze Metal, Polished.

Size, open,	1¼ x 2	1½ x 2¼	2 x 2½
Price, per pair,	.....	.....	.....

No. AB 813 P—Bronze Metal, Antique Copper Finish.

Size, open,	1¼ x 2	1½ x 2¼	2 x 2½
Price, per pair,	.....	.....	.....



Full size cut of 2½ inch.

Parliament Butts.

Loose Joint.

No. BB 1895—Iron, Bower-Barff Finish.

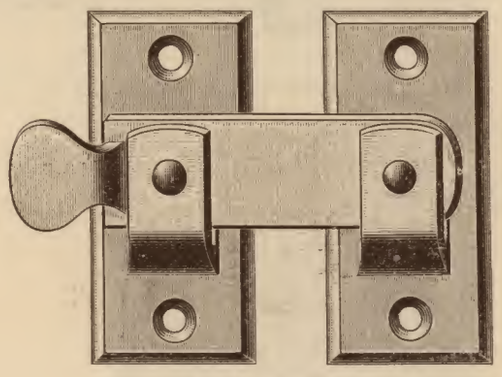
Size, open,	2½	3	3½
Price, per pair,	.....	.....	.....

No. 1895 P—Bronze Metal, Polished.

Size, open,	2½	3	3½
Price, per pair,	.....	.....	.....

No. AB 1895 P—Bronze Metal, Antique Copper Finish.

Size, open,	2½	3	3½
Price, per pair,	.....	.....	.....



Full size cut of 2 inch.

Reversible Shutter Bars.

Either Hand.

No. BB 2135—Iron, Bower-Barff Finish.

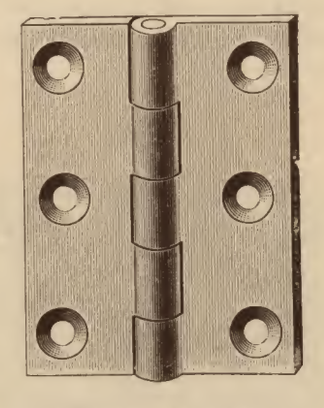
2 inch, price each, ...

No. 2134 P—Bronze Metal, Polished.

2 inch, price each, ...

No. AB 2134 P—Bronze Metal, Antique Copper Finish.

2 inch, price each, ...



Full size cut of 2 x 1½ inch.

Inside Blind Butts.

Fast Joint. Square Edges.

No. BB 823—Iron, Bower-Barff Finish.

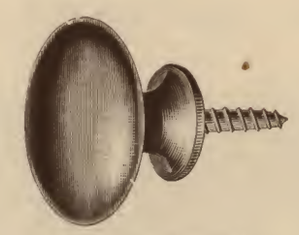
Size, open,	2 x 1¼	2 x 1½	2 x 1¾	2 x 2
Price, per pair,	.....	.....	.....	.....

No. 823 P—Bronze Metal, Polished.

Size, open,	2 x 1¼	2 x 1½	2 x 1¾	2 x 2
Price, per pair,	.....	.....	.....	.....

No. AB 823 P—Bronze Metal, Antique Copper Finish.

Size, open,	2 x 1¼	2 x 1½	2 x 1¾	2 x 2
Price, per pair,	.....	.....	.....	.....



Full size cut of 1⅛ inch.

Shutter Knobs.

No. BB 172—Iron, Bower-Barff Finish.

Size, 1 inch, per dozen, ...

No. 274 P—Bronze Metal, Polished.

Size, diameter,	⅞	1	1⅛
Price, per dozen,	.....	.....	.....

No. AB 274 P—Bronze Metal Antique Copper Finish.

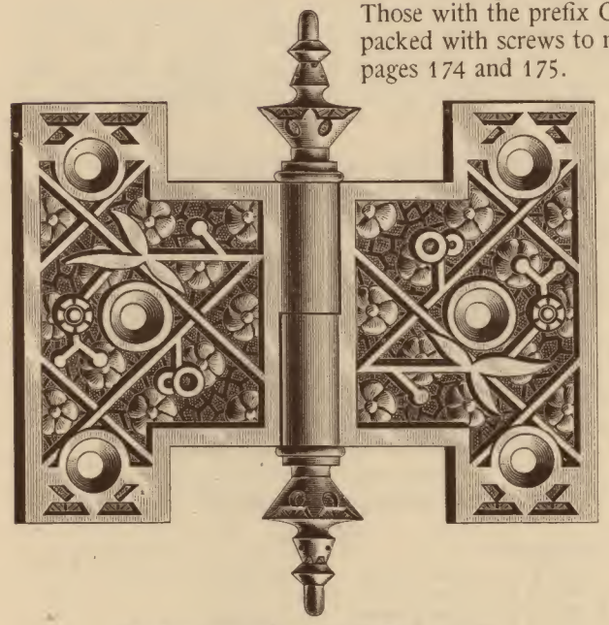
Size, diameter,	⅞	1	1⅛
Price, per dozen,	.....	.....	.....

Willer's Selection of Hardware for Inside Folding Blinds.

◆◆◆◆◆◆

Set D. Ekado Design. Genuine Bronze Metal.

All the goods shown on this page are of Genuine Bronze Metal with highly polished raised surfaces in natural color. Those with the prefix C have a Chocolate color background and those with the prefix M a Black background. All goods packed with screws to match. These goods can also be had in various other special finishes, for description of which see pages 174 and 175.



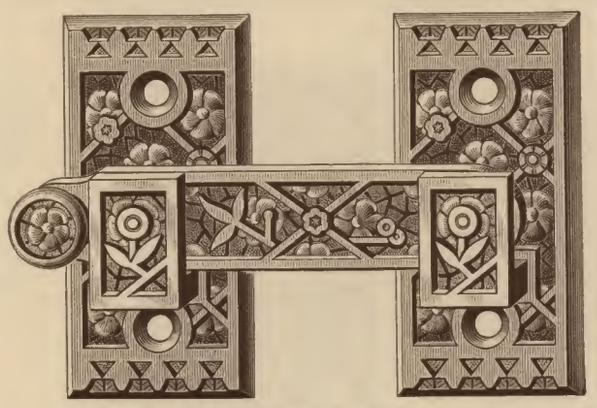
Full-size cut of C 2895 E and M 2895 E—3 inch.

Parliament Butts.

Loose Joint.

No. C 2895 E, Chocolate background.
No. M 2895 E, Black background.

Size, open,	3 in.	3½ in.	4 in.
Price, per pair,	.....	.....	.....



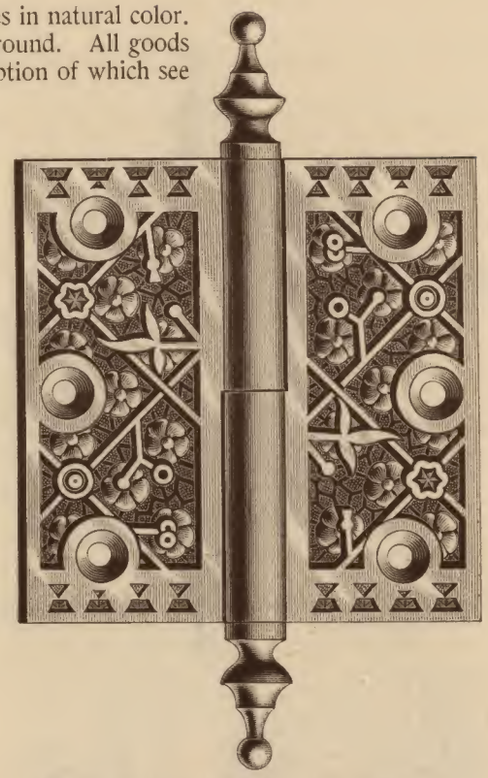
Full-size cut of C 264 E and M 264 E—2½ inch.

Reversible Shutter Bars.

Either Hand.

No. C 264 E, Chocolate background. No. M 264 E, Black background.

Size,	2 in.	2½ in.
Price, each,	.....	.....



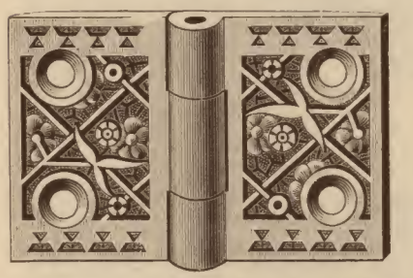
Full-size cut of C 863 E and M 863 E—2½x2½ inch.

Inside Blind Butts.

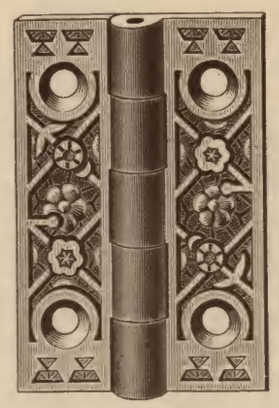
Loose Joint. Steeple Tips.

No. C 863 E, Chocolate background.
No. M 863 E, Black background.

Size, open,	2x1¾	2x2	2x2½	2½x2½
Price, per pair,	.....	.....	.....	.....



Full-size cut of C 815 E and M 815 E—1½x2¼ inch.



Full-size cut of C 825 E and M 825 E—2x1¼ inch.

Inside Blind Butts.

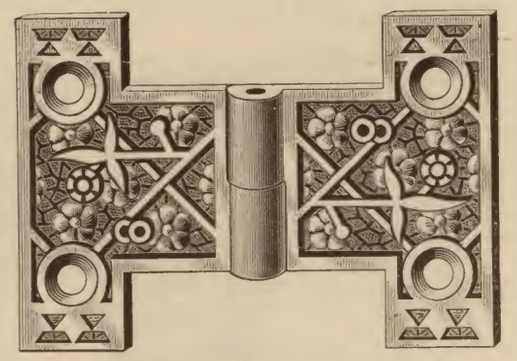
Fast Joint.

No. C 815 E, Chocolate background. No. M 815 E, Black background.

Size, open,	1¼x2	1½x2¼
Price, per pair,	.....	.....

No. C 825 E, Chocolate background. No. M 825 E, Black background.

Size, open,	2x1¼	2x1½
Price, per pair,	.....	.....



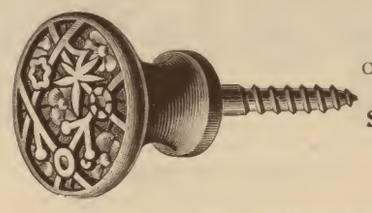
Full-size cut of C 1895 E and M 1895 E—2½ inch.

Parliament Butts.

Loose Joint.

No. C 1895 E, Chocolate background.
No. M 1895 E, Black background.

Size, open,	2½ in.	3 in.	3½ in.
Price, per pair,	.....	.....	.....



Full-size cut of C 84 E and M 84 E. 1 inch.

Shutter Knobs.

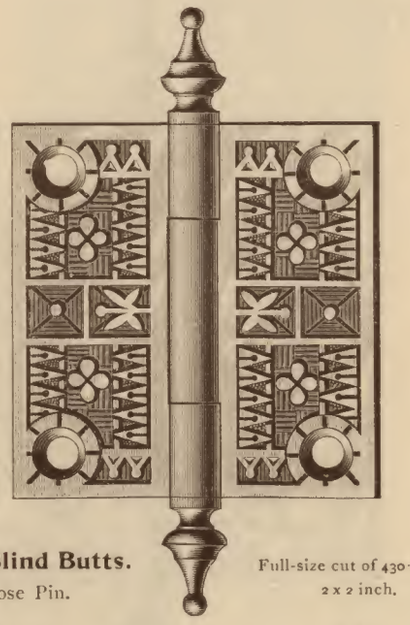
No. C 84 E, Chocolate background.
No. M 84 E, Black background.

Size, diameter,	⅞ in.	1 in.	1⅛ in.
Price, per dozen,	.....	.....	.....

Willer's Selection of Hardware for Inside Folding Blinds.

Set E. Ornamental Pattern. Iron and Bronze Metals. Packed with Screws to Match.

Description of Finishes: **Berlin Bronze**—Iron, polished raised surface, dark background. **Tokio Bronze**—Bronze-plated (light color), black background, polished raised surface. **Yeddo Bronze**—Bronze-plated (light color), all one color, polished, raised surface. **Bronze Metal**—Natural light bronze, polished surface. **Imperial Bronze**—Bronze metal, black background, raised surface in polished natural color. These goods can also be had in various other special finishes, for which see description on page 175.

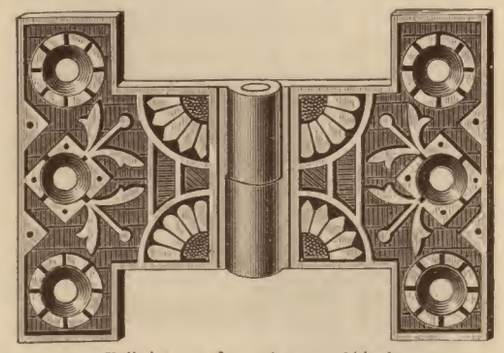


Full-size cut of 430-A, etc. 2 x 2 inch.

Inside Blind Butts.

Loose Pin.

Size, open,	2 x 2	2½ x 2½
430 A—Berlin Bronze, per pair,	.....	.....
K 430 A—Tokio Bronze, per pair,	.....	.....
Y 430 A—Yeddo Bronze, per pair,	.....	.....
S 30 A—Bronze Metal, per pair,	.....	.....
M S30 A—Imperial Bronze, per pair,	.....	.....

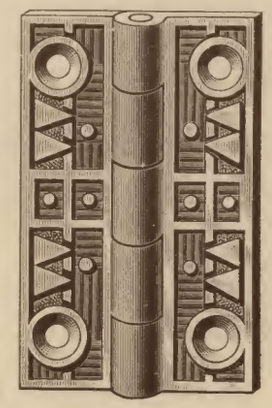


Full size cut of 1455 A, etc. 2½ inch.

Parliament Butts.

Loose Joint.

Size, open,	2½	3	3½
1495 A—Berlin Bronze, per pair,	.....	.....	.....
K 1495 A—Tokio Bronze, per pair,	.....	.....	.....
Y 1495 A—Yeddo Bronze, per pair,	.....	.....	.....
1895 A—Bronze Metal, per pair,	.....	.....	.....
M 1895 A—Imperial Bronze, per pair,	.....	.....	.....

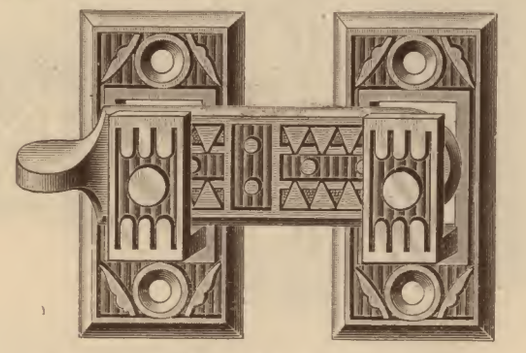


Full size cut of 425 A, etc. 2 x 1¼ inch.

Inside Blind Butts.

Fast Joint.

Size, open,	2 x 1¼	2 x 1½
425 A—Berlin Bronze, per pair,	.....	.....
K 425 A—Tokio Bronze, per pair,	.....	.....
Y 425 A—Yeddo Bronze, per pair,	.....	.....
S 25 A—Bronze Metal, per pair,	.....	.....
M S25 A—Imperial Bronze, per pair,	.....	.....

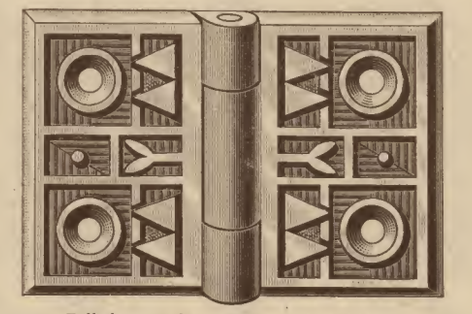


1135 A, etc. Full size cut of 2 inch.

Reversible Shutter Bars.

Either Hand.

Size.	2	2½
1135 A—Berlin Bronze, each,	.....	.....
K 1135 A—Tokio Bronze, each,	.....	.....
Y 1135 A—Yeddo Bronze, each,	.....	.....
1134 A—Bronze Metal, each,	.....	.....
M 1134 A—Imperial Bronze, each,	.....	.....

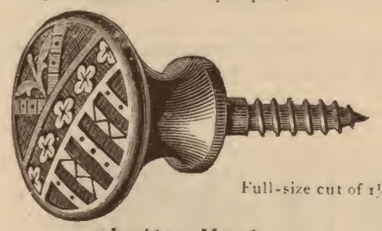


Full size cut of 415 A, etc, 1½ x 2¼ inch.

Inside Blind Butts.

Fast Joint.

Size, open,	1¼ x 2	1½ x 2¼
415 A—Berlin Bronze, per pair,	.....	.....
K 415 A—Tokio Bronze, per pair,	.....	.....
Y 415 A—Yeddo Bronze, per pair,	.....	.....
S 15 A—Bronze Metal, per pair,	.....	.....
M S15 A—Imperial Bronze, per pair,	.....	.....



Full-size cut of 1⅛ inch.

Shutter Knobs.

Size, diameter,	⅞	1	1⅛
S4 A—Bronze Metal, per dozen,	.....	.....	.....
M S4 A—Imperial Bronze, per dozen,	.....	.....	.....



Full-size cut of 1⅛ inch.

Shutter Knobs.

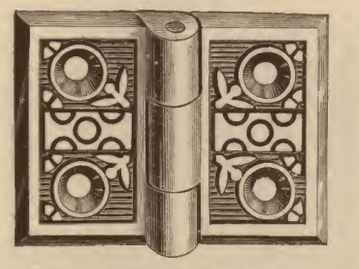
Size, diameter,	⅞	1⅛
152 A—Berlin Bronze, per dozen,	.....	.....
K 152 A—Tokio Bronze, per dozen,	.....	.....
Y 152 A—Yeddo Bronze, per dozen,	.....	.....

Willer's Selection of Hardware for Inside Folding Blinds.

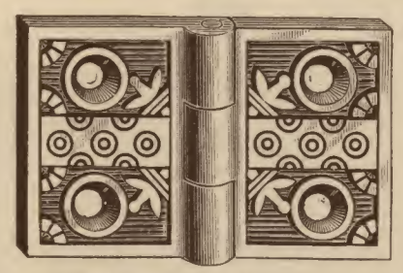
Set F. Windsor Design. Bronze Plated and Bronze Metal Goods.

The Bronze Plated Goods can be had in two finishes, as follows: Albion Bronze—Bronze Plated, all one color, polished raised surfaces. Geneva Bronze—Bronze Plated, Black Background, polished raised surfaces. Both finishes are same price. Packed with screws to match,

The Bronze Metal Goods can also be had in two finishes, as follows: Gold Bronze—Bronze Metal, light natural color throughout, polished raised surfaces. Royal Bronze—Bronze Metal, Black Background, polished raised surfaces. Both finishes are same price. Packed with screws to match.



Full-size cut No. 2, 1¼x1¾ inch.



Full-size cut of No. 3, 1¼x2 inch.

Inside Blind Butts.

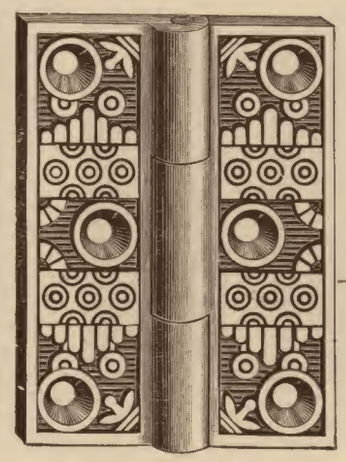
Fast Joint.

No. 2—Bevel edges, size, open. 1¼x1¾ inch. Price, per pair, Bronze Plated ,.....; Bronze Metal, ...

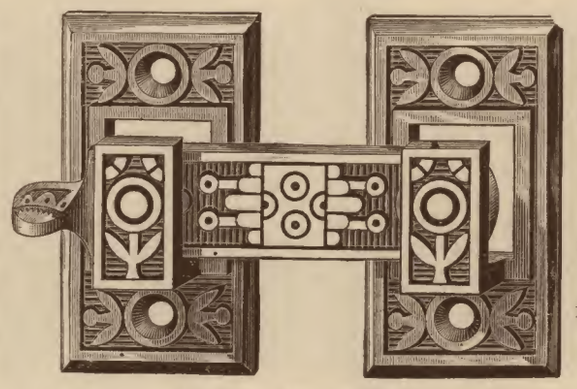
3—Square edges, size, open, 1¼x2 inch. Price, per pair, Bronze Plated, ...; Bronze Metal, ...

4—Size, open, 2x1½ inch. Price, per pair, Bronze Plated, ...; Bronze Metal, ...

4—Size, open, 2¼x1¾ inch. Price, per pair, Bronze Plated, ...; Bronze Metal, ...



Full-size cut of No. 4, 2¼x1¾ inch.



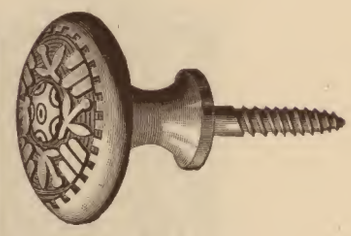
Full-size cut of No. 9, 2½ inch.

Reversible Shutter Bars.

Either Hand.

No. 9—2 inch, price each, Bronze Plated, ...; Bronze Metal, ...

9—2½ inch, price each Bronze Plated .....; Bronze Metal ....



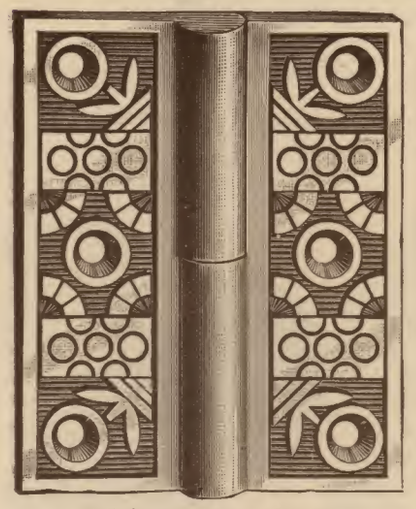
Full-size cut of No. 10, 1⅛ inch.

Shutter Knobs.

No. 10—⅞ inch, price, per doz., Bronze Plated, ...; Bronze Metal, ...

10—1 inch, price per doz., Bronze Plated,.....; Bronze Metal, ...

10—1⅛ inch, price, per doz., Bronze Plated,.....; Bronze Metal .....



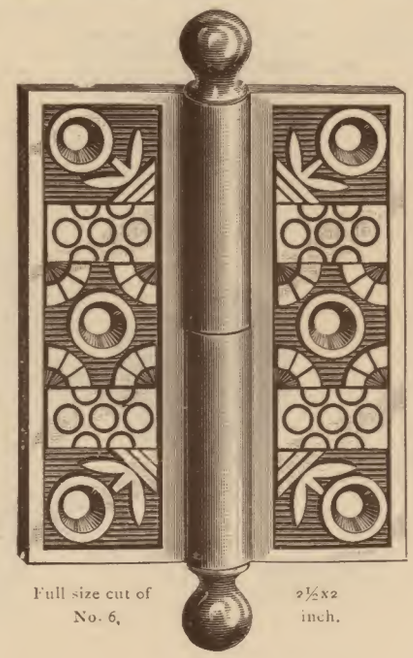
Full-size cut of No. 5, 2½x2 inch.

Inside Blind Butts.

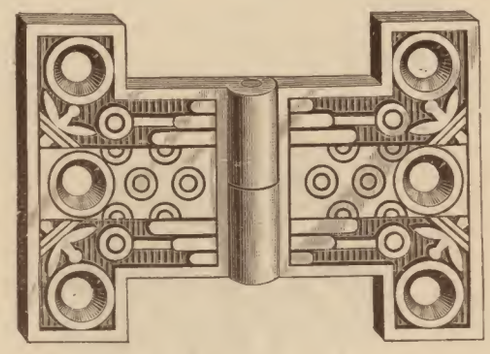
Loose Joint.

No. 5—Size, open, 2½x2 inch, Price, per pair, Bronze Plated, ...; Bronze Metal, ...

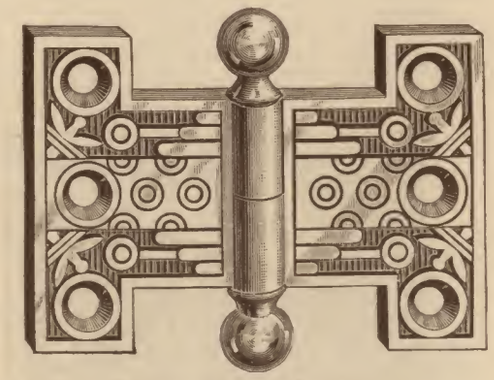
6—With Bronze Metal Ball Tips, size 2½x2 inch. Price, per pair, Bronze Plated,..... Bronze Metal, ...



Full size cut of No. 6, 2½x2 inch.



Full-size cut of No. 7, 1¾x2½ inch.



Full-size cut of No. 8, 1¾x2½ inch.

Parliament Butts.

Loose Joint.

No. 7—Size, open, 1¾x2½ inch, ... per pair, Bronze Plated, ...; Bronze Metal, ...

7—Size, open, 2x3 inch, ... per pair, Bronze Plated, ...; Bronze Metal, ...

7—Size, open, 2¼x3¼ inch, ... per pair, Bronze Plated, ...; Bronze Metal, ...

8—With Bronze Metal, Ball Tips, size, open, 1¾x2½ inch, ... per pair, Bronze Plated, ...; Bronze Metal, ...

8—With Bronze Metal, Ball Tips, size, open, 2x3 inch, ... per pair, Bronze Plated, ...; Bronze Metal, ...

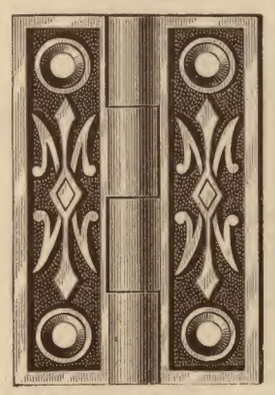
8—With Bronze Metal, Ball Tips, size, open, 2¼x3½ inch, ... per pair, Bronze Plated, ...; Bronze Metal, ...

Willer's Selection of Hardware for Inside Folding Blinds.

◆◆◆◆◆◆

Set G. **Ornamental Pattern.** **Iron, Bronzed and Bronze-Plated Goods.**

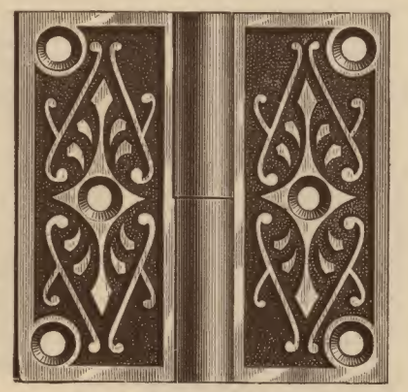
All the goods shown on this page are made of Iron. "Florentine" Bronze—Iron, Boston Finish, dark brown color, raised polished surfaces. "Kahala" Bronze—dark brown color, raised polished surfaces. Finish No. 3—Iron, Electro Bronze-Plated, light color, polished raised surfaces, black background.



Nos. 8007 and 7007—2 x 1¼ inch. Fast Joint.



Nos. 8008 and 7008—2 x 2 inch. Loose Pin.

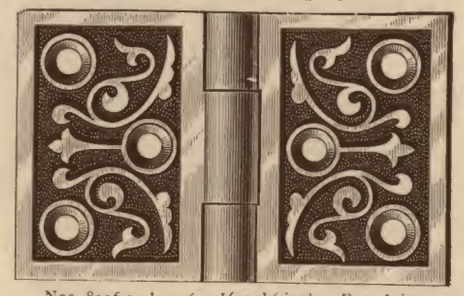


Nos. 8009 and 7009—2 x 2 inch. Loose Joint.

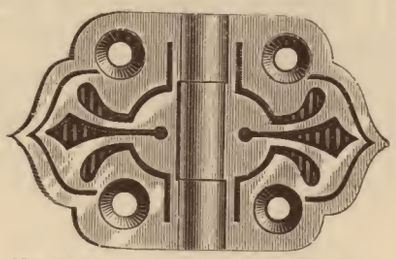
Inside Blind Butts.

	Florentine Bronze.		Bronze-Plated. Finish No. 3.	
No. 8007	2 x 1¼ inch,	No. 7007	2 x 1¼ inch,	
	2¼ x 1⅝ inch,		2¼ x 1⅝ inch,	
8008	2 x 2 inch,	7008	2 x 2 inch,	
	2½ x 2½ inch,		2½ x 2½ inch,	
8009	2 x 1¾ inch,	7009	2 x 1¾ inch,	
	2 x 2 inch,		2 x 2 inch,	
	2½ x 2½ inch,		2½ x 2½ inch,	

Above prices are per single pair.



Nos. 8006 and 7006—1½ x 2¼ inch. Fast Joint.

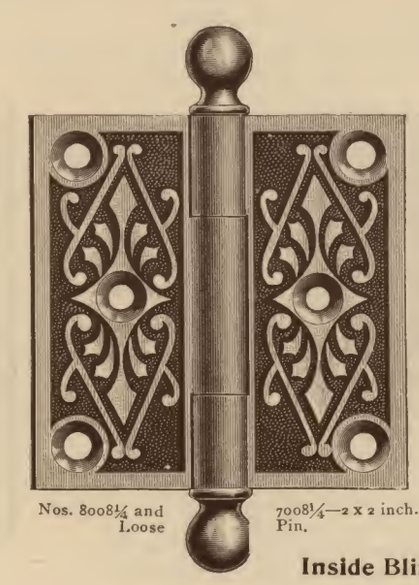


Nos. 8005 and 7005—1¼ x 2 inch. Fast Joint.

Back Flaps.

	Florentine Bronze.		Bronze-Plated. Finish No. 3.
No. 8006	1¼ x 2 inch,	No. 7006	1¼ x 2 inch,
	1½ x 2¼ inch,		1½ x 2¼ inch,
8005—1¼ x 2 inch,		7005—1¼ x 2 inch,	

Prices are per single pair.



Nos. 8008¼ and Loose 7008¼—2 x 2 inch. Pin.



Nos. 8010 and Loose 7010—2 x 2 inch. Joint.

Inside Blind Butts.

With Bronze Metal Tips.

	Florentine Bronze.		Bronze-Plated. Finish No. 3.
No. 8008¼	2 x 2 inch,	No. 7008¼	2 x 2 inch,
	2½ x 2½ inch,		2½ x 2½ inch,
8010	2 x 1¾ inch,	7010	2 x 1¾ inch,
	2 x 2 inch,		2 x 2 inch,
	2½ x 2½ inch,		2½ x 2½ inch,

Prices are per single pair.



Nos. 8007 and 7007—⅞ inch.



Nos. 8008 and 7008—1 inch.

Shutter Knobs.

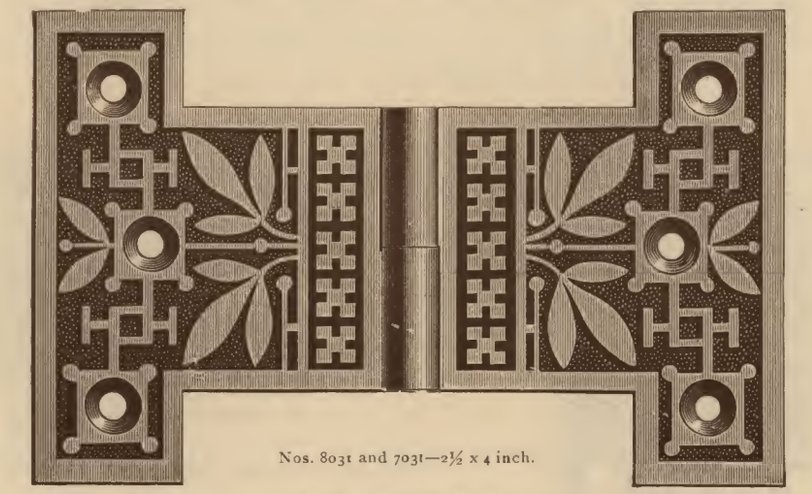
Kahala Bronze.	Bronze-Plated. Finish No. 3.
No. 8007—⅞ inch,	No. 7007—⅞ inch,
8008—1 inch,	7008—1 inch,

Prices are per dozen.

Willer's Selection of Hardware for Inside Folding Blinds.

All the goods shown on this page are made of Iron. "Florentine" Bronze—Iron, Boston Finish, dark brown color, raised polished surfaces. "Kahala" Bronze—dark brown color, raised polished surfaces. Finish No. 3—Iron, Electro Bronze-Plated, light color, polished raised surfaces, black background.

Set G. Ornamental Pattern. Iron, Bronzed and Bronze-Plated Goods.



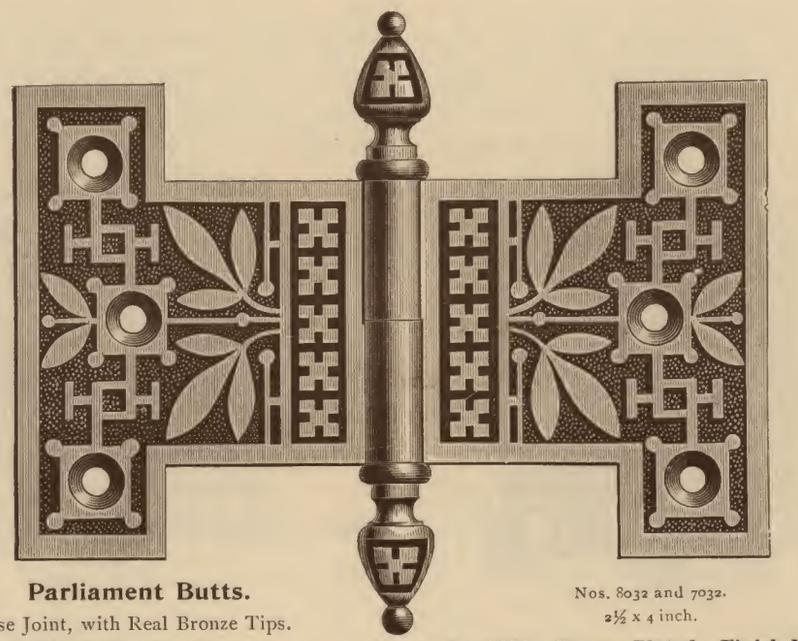
Nos. 8031 and 7031—2½ x 4 inch.

Parliament Butts.

Loose Joint, without Tips.

No. 8031. Florentine Bronze.	No. 7031. Bronze-Plated. Finish No. 3.
1¾ x 2½ inch, ...	1¾ x 2½ inch, ...
2 x 3 inch, ...	2 x 3 inch, ...
2 x 3½ inch, ...	2 x 3½ inch, ...
2½ x 4 inch, ...	2½ x 4 inch, ...
2¾ x 4½ inch, ...	2¾ x 4½ inch, ...

Prices are per single pair.



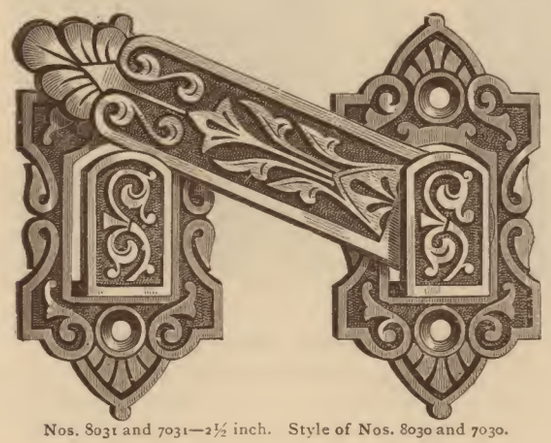
Nos. 8032 and 7032.
2½ x 4 inch.

Parliament Butts.

Loose Joint, with Real Bronze Tips.

No. 8032. Florentine Bronze.	No. 7032. Bronze-Plated. Finish No. 3.
1¾ x 2 inch, ...	1¾ x 2 inch, ...
2 x 3 inch, ...	2 x 3 inch, ...
2 x 3½ inch, ...	2 x 3½ inch, ...
2½ x 4 inch, ...	2½ x 4 inch, ...
2¾ x 4½ inch, ...	2¾ x 4½ inch, ...

Prices are per single pair.



Nos. 8031 and 7031—2½ inch. Style of Nos. 8030 and 7030.

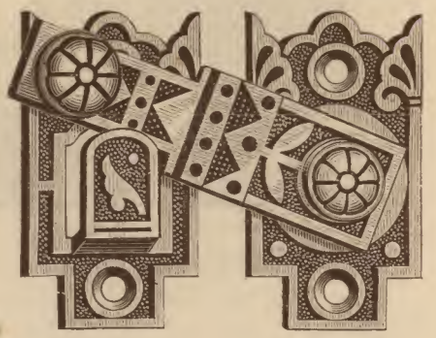
Reversible Shutter Bars.

Either Hand.

Kahala Bronze.	Bronze-Plated. Finish No. 3.
No. 8030—2 inch, . . . each, ...	No. 7030—2 inch, . . . each, ...
8031—2½ inch, . . . each, ...	7031—2½ inch, . . . each, ...

Kahala Bronze, with Real Bronze Knob.

No. 8034—2 inch, . . . each, ... No. 8035—2½ inch, . . . each. .....



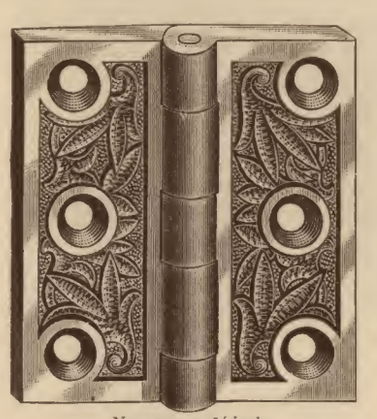
No. 8034—2 inch. Style of No. 8035.

Willer's Selection of Hardware for Inside Folding Blinds.

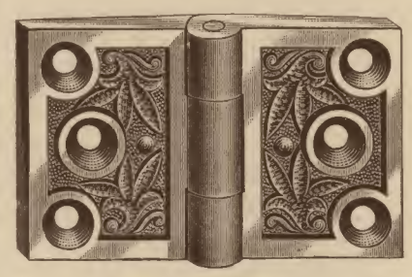
Set H. Romanesque Pattern.

Set I. Jacobean Pattern.

All the goods on this page are of Genuine Bronze Metal, and at the prices quoted, can be had in any of the following Finishes: No. 1—Natural color, light bronze. No. 2—Chemical dark-brown or statuary bronze. No. 3—Natural color on surfaces, with black background. No. 4—Natural color on surfaces, with dark-brown background. No. 15—Natural color on surfaces with sage-green background. No. 16—Natural color on surfaces with terra-cotta background. No. 17—Natural color on surfaces with steel-gray background. No. 18—Japanese finish. These goods can also be had in various other special finishes, for description of which see page 175.



No. 97—2 x 1¾ inch.

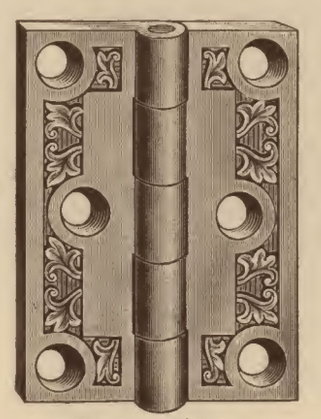


No. 97—1¼ x 2 inch.

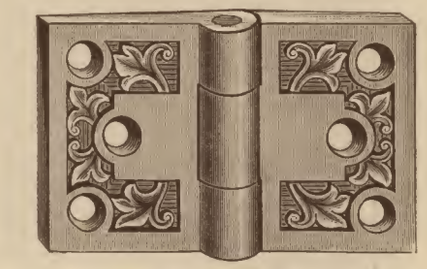
No. 97. Inside Blind Butts.

Fast Joint. Genuine Bronze Metal.

Size, open,	1¼ x 2	1½ x 2	2 x 1¼	2 x 1½	2 x 1¾
Price, per pair,	.....	.....	.....	.....	.....



No. 98—2 x 1½ inch.

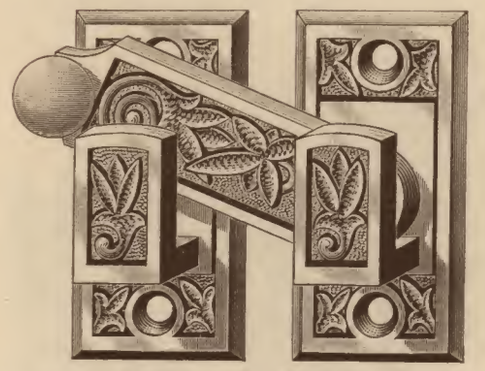


No. 98—1¼ x 2 inch.

No. 98. Inside Blind Butts.

Fast Joint. Genuine Bronze Metal.

Size, open,	1¼ x 2	1½ x 2	2 x 1¼	2 x 1½	2 x 1¾
Price, per pair,	.....	.....	.....	.....	.....



No. 9692—2 inch. Style of No. 9693.

Reversible Shutter Bars.

Genuine Bronze Metal.

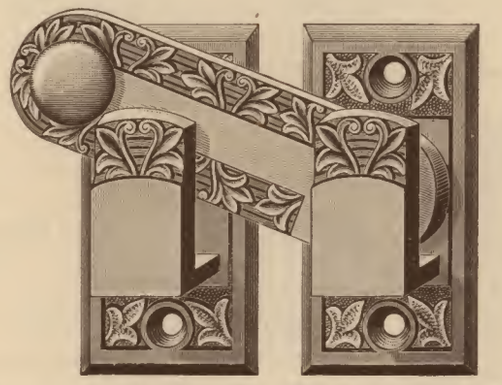
No. 9692—2 inch, ... each, ...
9693—2½ inch, ... each, ...



No. 9935. Shutter Knobs.

Genuine Bronze Metal.

1¼ inch, ... per dozen, ...



No 9192—2 inch. Style of No. 9493.

Reversible Shutter Bars.

Genuine Bronze Metal.

No. 9492—2 inch, ... each, ...
9493—2½ inch, ... each, ...



No. 9435. Shutter Knobs.

Genuine Bronze Metal.

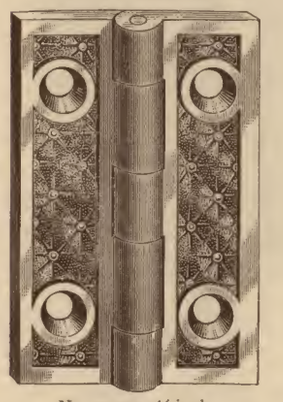
1¼ inch, ... per dozen, ...

Willer's Selection of Hardware for Inside Folding Blinds.

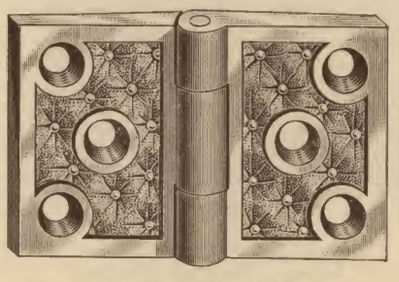
Set J. Cushion Pattern.

Set K. Brocade Pattern.

All the goods on this page are of Genuine Bronze Metal, and at the prices quoted, can be had in any of the following Finishes: No. 1—Natural color, light bronze. No. 2—Chemical dark-brown or statuary bronze. No. 3—Natural color on surfaces, with black background. No. 4—Natural color on surfaces, with dark-brown background. No. 15—Natural color on surfaces, with sage-green background. No. 16—Natural color on surfaces, with terra-cotta background. No. 17—Natural color on surfaces, with steel-gray background. No. 18—Japanese finish. These goods can also be had in various other special finishes, for description of which see page 175.



No. 77—2 x 1½ inch.

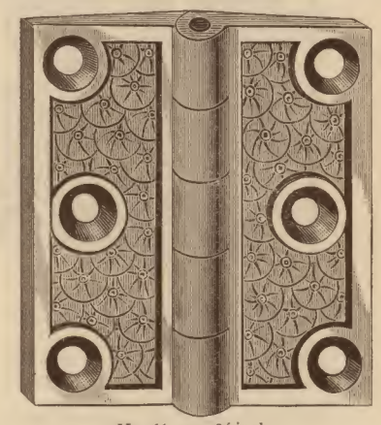


No 77—1¼ x 2 inch.

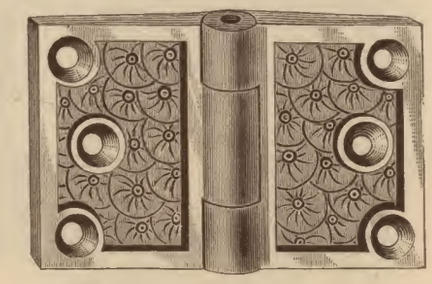
No. 77. Inside Blind Butts.

Fast Joint. Genuine Bronze Metal.

Size, open,	1¼ x 2	1½ x 2	2 x 1¼	2 x 1½	2 x 1¾
Price, per pair,	.....	.....	.....	.....	.....



No. 66—2 x 1¾ inch.

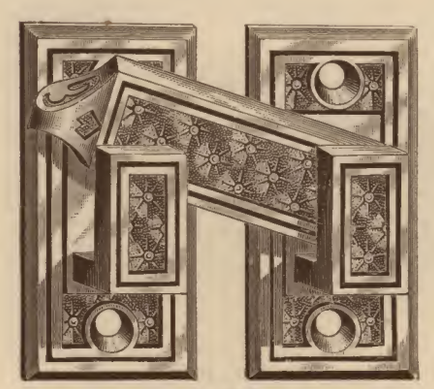


No. 66—1¼ x 2 inch.

No. 66. Inside Blind Butts.

Fast Joint. Genuine Bronze Metal.

Size, open,	1¼ x 1¾	1¼ x 2	1½ x 2		
Price, per pair,	.....	.....	.....		
Size, open,	2 x 1¼	2 x 1¾	2¼ x 1½	2½ x 1¾	2½ x 2
Price, per pair,	.....	.....	.....	.....	.....



No. 7692—2 inch. Style of No. 7693.

Reversible Shutter Bars.

Genuine Bronze Metal.

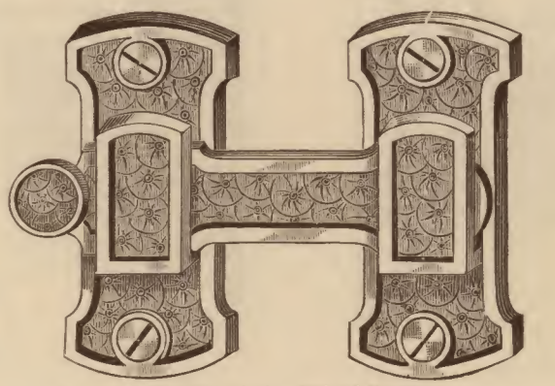
No. 7692—2 inch, . . . each. .....
7693—2½ inch, . . . each, ...



No. 7935. Shutter Knobs.

Genuine Bronze Metal.

1⅛ inch, ... per dozen, ...



No. 2682—2 inch. Style of No. 2683.

Reversible Shutter Bars.

Genuine Bronze Metal.

No. 2682—2 inch, ... each, ...
2683—2½ inch, ... each, ...



No. 2935. Shutter Knobs.

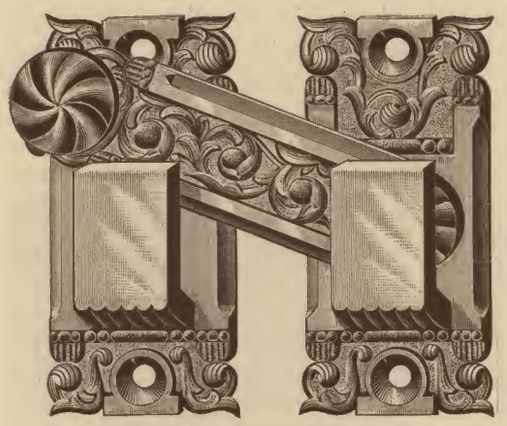
Genuine Bronze Metal.

1⅛ inch, ... per dozen, ...

Willer's Selection of Hardware for Inside Folding Blinds.

◆◆◆◆◆◆

Set L. Columbian Design. Antique Copper Finish on Iron and Bronze Metals.



Nos. 6 and 16—2½ inch.

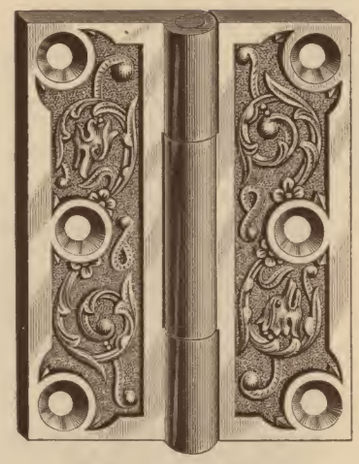
Reversible Shutter Bars.

No. 6—Antique Copper on Iron.

Size, 2½ inch,. . . . . each, ...

No. 16—Antique Copper on Bronze.

Size, 2½ inch, ... each, ...



Nos. 1 and 11—2¼ x 1¾ inch.

Inside Shutter Butts.

Fast Joint.

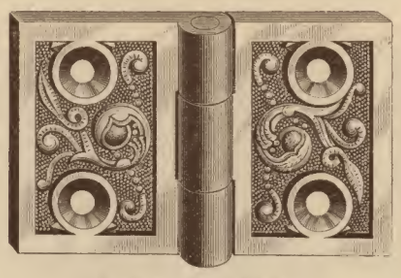
No. 1—Antique Copper on Iron.

Size, open, ...	2 x 1½	2¼ x 1¾
Price, per pair, ...	.....	.....

No. 11—Antique Copper on Bronze.

Size, open, ...	2 x 1½	2¼ x 1¾
Price, per pair, ...	.....	.....

These goods can also be had in various other special finishes, for description of which see page 175.



Nos. 2 and 12—1¼ x 2 inch.

Inside Shutter Butts.

Fast Joint.

No. 2—Antique Copper on Iron.

1¼ x 2, square edges, . . per pair, ...
1¼ x 1¾, bevel edges, . . per pair, ...

No. 12—Antique Copper on Bronze.

1¼ x 2, square edges, . . per pair, ...
1¼ x 1¾, bevel edges, . . per pair, ...



Nos. 3 and 13— 2½ x 2 inch.

Inside Shutter Butts.

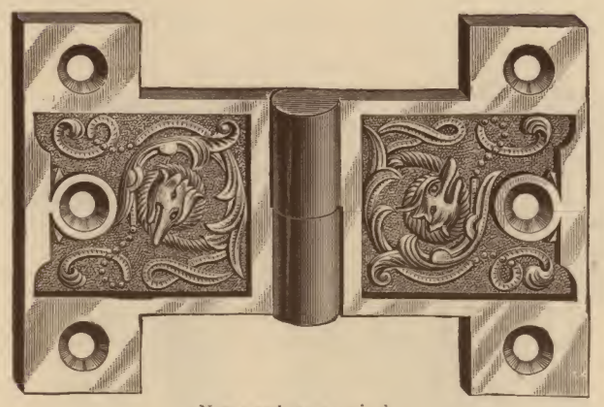
Loose Joint. Bronze Ball Tips.

No. 3—Antique Copper on Iron.

2½ x 2, bronze tips, . . . per pair, ...
2½ x 2, without tips, . . . per pair, ...

No. 13—Antique Copper on Bronze.

2½ x 2, bronze tips, . . . per pair, ...
2½ x 2, without tips, . . . per pair, ...



Nos. 4 and 14—2 x 3 inch.

Parliament Butts.

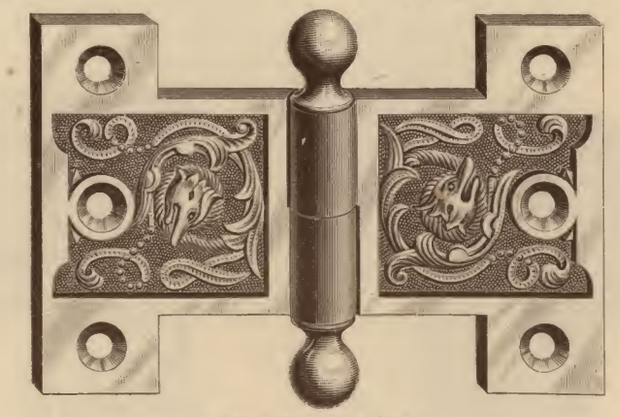
Loose Joint.

No. 4—Antique Copper on Iron.

Size, open, ...	1¾ x 2½	2 x 3	2¼ x 3½
Price, ... per pair,	.....	.....	.....

No. 14—Antique Copper on Bronze.

Size, open, ...	1¾ x 2½	2 x 3	2¼ x 3½
Price, ... per pair,	.....	.....	.....



Nos. 5 and 15—2 x 3 inch.

Parliament Butts.

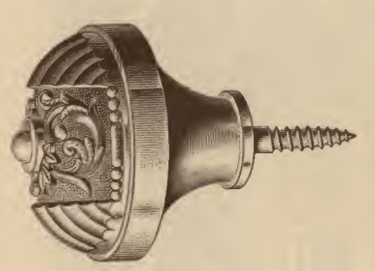
Loose Joint. With Bronze Metal Ball Tips.

No. 5—Antique Copper on Iron.

Size, open, ...	1¾ x 2½	2 x 3	2¼ x 3½
Price, ... per pair,	.....	.....	.....

No. 15—Antique Copper on Bronze.

Size, open, ...	1¾ x 2½	2 x 3	2¼ x 3½
Price, ... per pair,	.....	.....	.....



Nos. 7 and 8—1¼ inch.

Shutter Knobs.

No. 7—Antique Copper on Iron.

Size, 1¼ inch, ... per dozen, ...

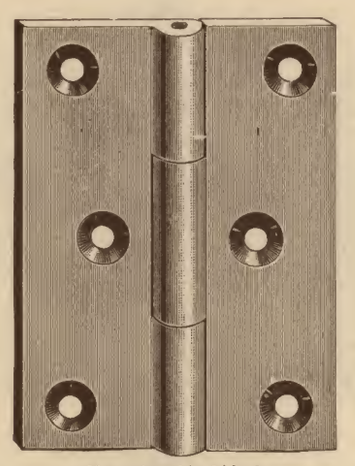
No. 8—Antique Copper on Bronze.

Size, 1¼ inch, ... per dozen .....

Willer's Selection of Hardware for Inside Folding Blinds.

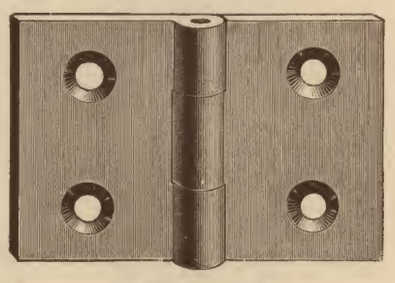
Set M. Plain Pattern. Genuine Bronze Metal.

All goods listed and numbered on this page, are of Genuine Bronze Metal, finished and polished in the natural color of the metal. This finish will invariably be supplied, where not otherwise ordered. These goods can also be furnished in Antique Copper and Oxidized Silver Finish, at extra cost.



No. 1265—2¼x ¾ inch.

No. 1269—Size, 2x1¼ inch; price, per pair, ...
1265—Size, 2¼x1¾ inch; price, per pair, ...

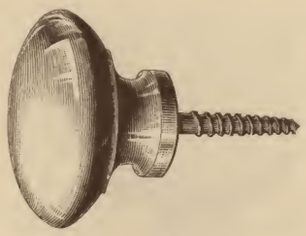


No. 1260—1¼x2 inch.

Inside Blind Butts.

Fast Joint.

No. 1260—Size, 1¼x2 inch; square edges, per pair, ...
1262—Size, 1¼x2 inch, beveled edges, per pair, ...

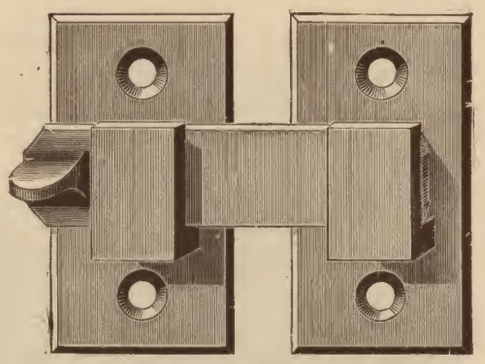


No. 1289—1⅛ inch.

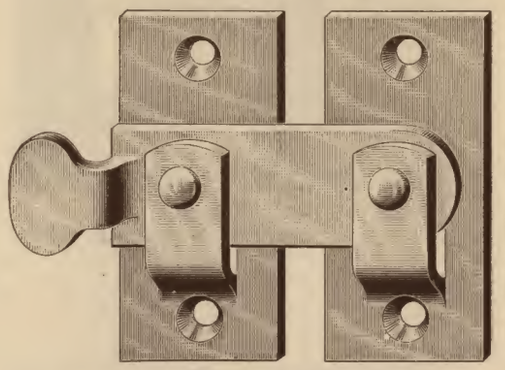
Shutter Knobs.

Fast Screw.

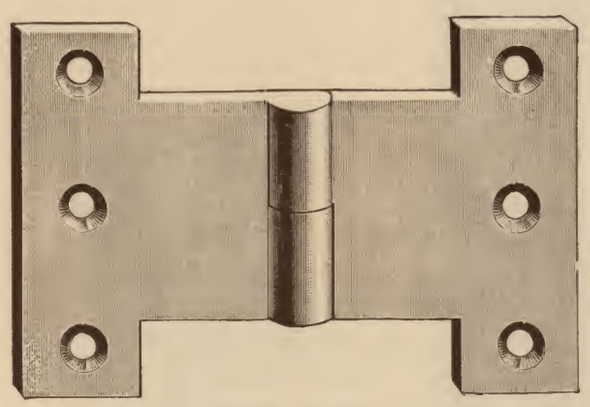
No. 1288—Size, diameter 1 inch. Price, per dozen, ...
1289—Size, diameter 1⅛ inch. Price, per dozen, ...



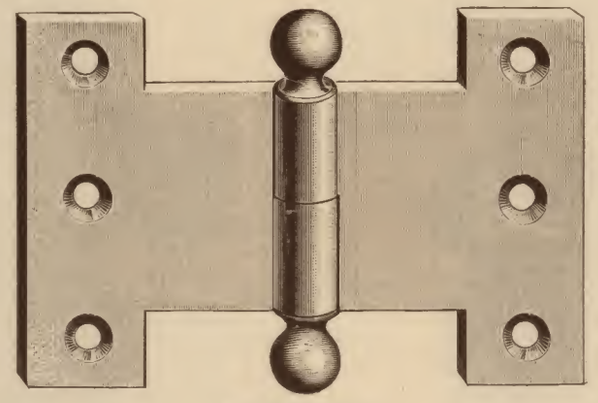
Full-size cut of No 1577.



Full-size cut of No. 1566½.



No. 1288½—2x3 inch.

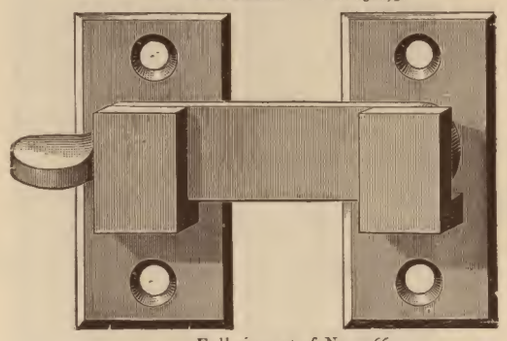


No. 1297½—2x3 inch.

Parliament Butts.

Loose Joint.

No. 1285½—1¾x2½ inch, per pair, ...
1288½—2 x3 inch, per pair, ...
1291½—2¼x3½ inch, per pair, ...
No. 1294½—1¾x2½ inch, per pair, ...
1297½—2 x3 inch, per pair, ...
1300½—2¼x3½ inch, per pair, ...



Full-size cut of No. 1566.

Reversible Shutter Bars.

No. 1577—Size, 2½ inch, price, each, ...
1566½—Size, 2½ inch, price, each, ...
1566—Size, 2½ inch, price, each, ...

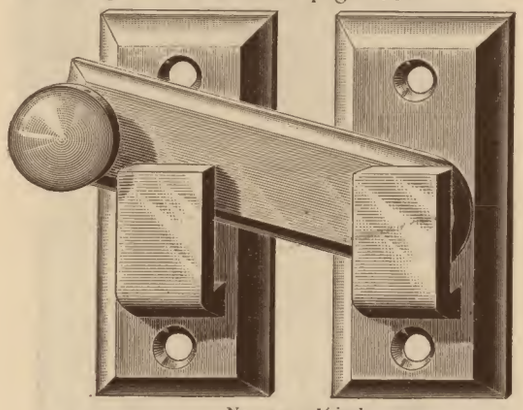
Willer's Selection of Hardware for Inside Folding Blinds.

◆◆◆◆◆◆

Set M 1. Plain Pattern.
Set M 3. Ribbon Pattern.
Set M 2. Fluted Pattern.
Set M 4. La Grande Design.

Genuine Bronze Metal. Natural Finish.

On this page we show four styles of Reversible Shutter Bars and Shutter Knobs, for which the manufacturers make no special Butts and Hinges to match. The plain pattern Butts, shown on preceding page under Set M, will have to be ordered in connection with these. These goods can also be furnished in various other special finishes, for description of which see page 175.



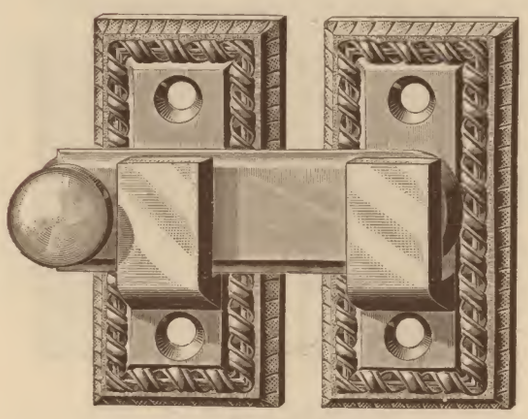
No. 1575—2½ inch.

No. 1575. Reversible Shutter Bars.
Plain Pattern.
Size 2½ inch, ... price, each, ...



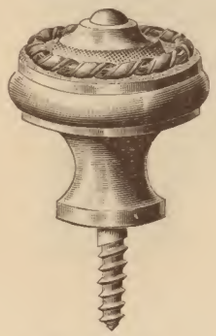
No. 1289—1⅛ inch.

Shutter Knobs.
Plain Pattern.
No. 1288—Size, diameter 1 inch, ...
price, per dozen, .
1289—Size, diameter 1⅛ inch,
price, per dozen, ...



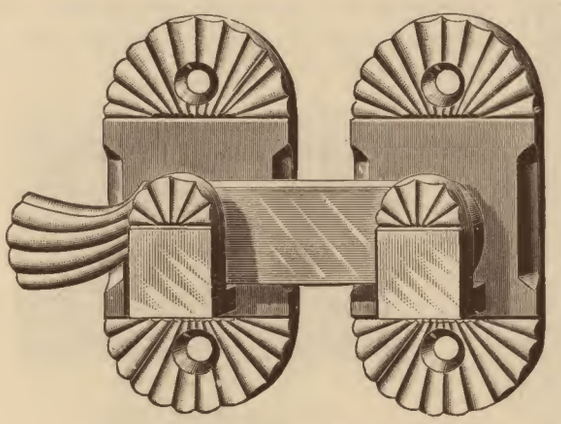
No. 3580—2½ inch.

No. 3580. Reversible Shutter Bars.
Ribbon Pattern.
Size, 2½ inch, ... price, each, ...



No. 3299—1¼ inch.

No. 3299. Shutter Knobs.
Ribbon Pattern.
Size, diameter 1¼ inch,
price, per dozen, ...



No. C 1677—2½ inch.

No. C 1677. Reversible Shutter Bars.
Fluted Pattern.
Size, 2½ inch. . . . . price, each, ...



No. 1690—1¼ inch.

No. 1690. Shutter Knobs.
Fluted Pattern.
Size, diameter 1¼ inch,
price, per dozen, ...



No. 5580—2½ inch.

No. 5580. Reversible Shutter Bars.
La Grande Design.
Size, 2½ inch, ... price, each, ...



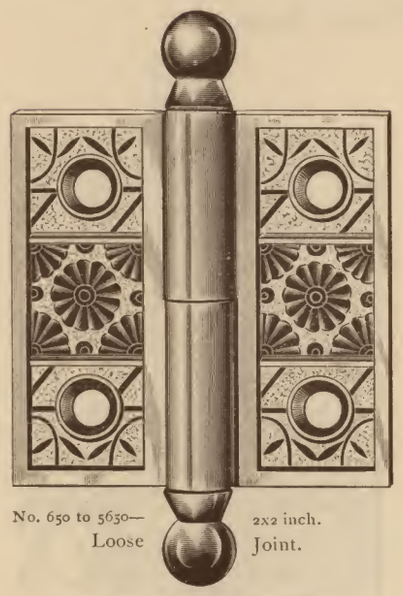
No. 5299—1¼ inch.

No. 5299. Shutter Knobs.
La Grande Design.
Size, diameter, 1¼ inch,
price, per dozen, ...

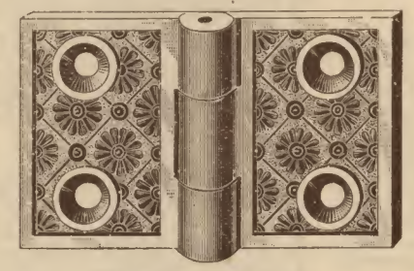
Willer's Selection of Hardware for Inside Folding Blinds.

Set N. Floral Design. Iron and Bronze Metals.

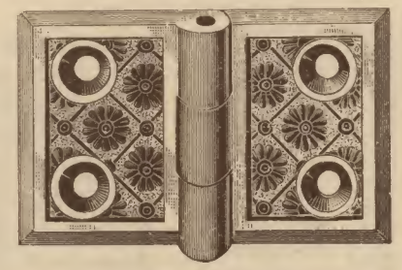
Description of finishes: **Bremen Bronzed**—Iron, polished raised surfaces, dark background. **Dresden Bronzed**—Iron, bronze-plated, all one color (light), polished surfaces. **Paris Bronzed**—Iron, bronze-plated (light), black background. **Bronze Metal**—Natural light bronze, polished surfaces. **Roman Bronze**—Bronze Metal, black background, raised surfaces polished natural color. These goods can also be furnished in various other special finishes, for description of which see page 175.



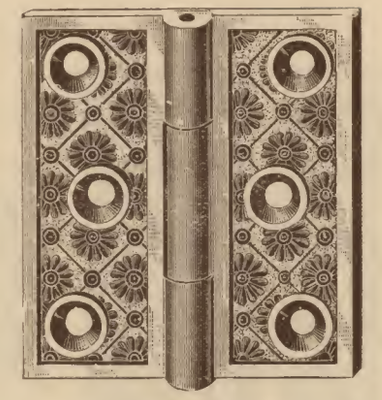
No. 650 to 5650—2x2 inch.
Loose Joint.



Nos. 570 to 5570—1¼x2 inch.
Fast Joint. Square Edges.



Nos. 585 to 5585—1¼x2 inch.
Fast Joint. Bevel Edges.



Nos. 510 to 5510—2x1¾ inch.
Fast Joint.

Inside Blind Butts.

No. 650. Bremen Bronzed.

Size, inch,	2x2	2½x2½
Price, per pair,	.....	.....

No. 2650. Dresden Bronzed.

Size, inch,	2x2	2½x2½
Price, per pair,	.....	.....

No. 3650. Paris Bronzed.

Size, inch,	2x2	2½x2½
Price, per pair,	.....	.....

No. 4650. Bronze Metal.

Size, inch,	2x2	2½x2½
Price, per pair,	.....	.....

No. 5650. Roman Bronze.

Size, inch,	2x2	2½x2½
Price, per pair,	.....	.....

No. 570. Bremen Bronzed.

Size, inch,	1¼x1¾	1¼x2
Price, per pair,	.....	.....

No. 2570. Dresden Bronzed.

Size, inch,	1¼x1¾	1¼x2
Price, per pair,	.....	.....

No. 3570. Paris Bronzed.

Size, inch,	1¼x1¾	1¼x2
Price, per pair,	.....	.....

No. 4570. Bronze Metal.

Size, inch,	1¼x1¾	1¼x2
Price, per pair,	.....	.....

No. 5570. Roman Bronze.

Size, inch,	1¼x1¾	1¼x2
Price, per pair,	.....	.....

No. 585. Bremen Bronzed.

Size, inch,	1¼x1¾	1¼x2
Price, per pair,	.....	.....

No. 2585. Dresden Bronzed.

Size, inch,	1¼x1¾	1¼x2
Price, per pair,	.....	.....

No. 3585. Paris Bronzed.

Size, inch,	1¼x1¾	1¼x2
Price, per pair,	.....	.....

No. 4585. Bronze Metal.

Size, inch,	1¼x1¾	1¼x2
Price, per pair,	.....	.....

No. 5585. Roman Bronze.

Size, inch,	1¼x1¾	1¼x2
Price, per pair,	.....	.....

No. 510. Bremen Bronzed.

Size, inch,	2x1¼	2x1¾
Price, per pair,	.....	.....

No. 2510. Dresden Bronzed.

Size, inch,	2x1¼	2x1¾
Price, per pair,	.....	.....

No. 3510. Paris Bronzed.

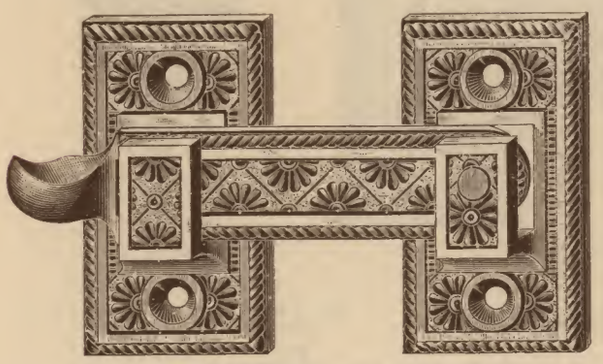
Size, inch,	2x1¼	2x1¾
Price, per pair,	.....	.....

No. 4510. Bronze Metal.

Size, inch,	2x1¼	2x1¾
Price, per pair,	.....	.....

No. 5510. Roman Bronze.

Size, inch,	2x1¼	2x1¾
Price, per pair,	.....	.....



Nos. 805, 2805, 3805, 4805 and 5805—2½ inch.
Style of Nos. 705, 2705, 3705, 4705 and 5705—2 inch.

Reversible Shutter Bars.

Bremen Bronzed.

No. 705—Size, 2 inch, each, ...
805—Size, 2½ inch, each, ...

Dresden Bronzed.

No. 2705—Size, 2 inch, each, ...
2805—Size, 2½ inch, each, ...

Paris Bronzed.

No. 3705—Size, 2 inch, each, ...
3805—Size, 2½ inch, each, ...

Bronze Metal.

No. 4705—Size, 2 inch, each, ...
4805—Size, 2½ inch, each, ...

Roman Bronze.

No. 5705—Size, 2 inch, each, ...
5805—Size, 2½ inch, each, ...



Nos. 385, 2385, 3385, 4385 and 5385—1⅛ inch.
Style of Nos. 370, 2370, 3370, 4370 and 5370—1 inch.

Shutter Knobs.

Bremen Bronzed.

No. 370—1 inch, per dozen, ...
385—1⅛ inch, per dozen, ...

Dresden Bronzed.

No. 2370—1 inch, per dozen, ...
2385—1⅛ inch, per dozen, ...

Paris Bronzed.

No. 3370—1 inch, per dozen, ...
3385—1⅛ inch, per dozen, ...

Bronze Metal.

No. 4370—1 inch, per dozen, ...
4385—1⅛ inch, per dozen, ...

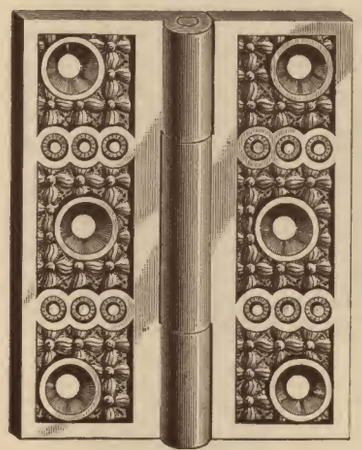
Roman Bronze.

No. 5370—1 inch, per dozen, ...
5385—1⅛ inch, per dozen, ...

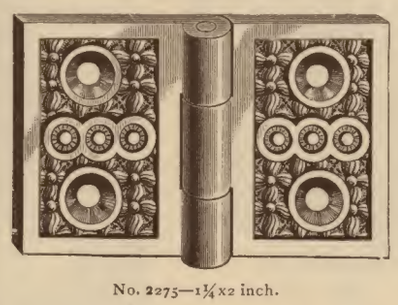
Willer's Selection of Hardware for Inside Folding Blinds.

Set O. Elaine Design. Genuine Bronze Metal.

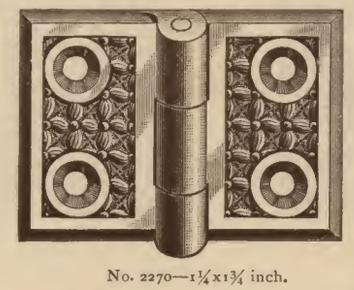
All the goods as listed and numbered on this page, are made of Genuine Bronze Metal, have polished raised surfaces in the natural color of metal, and the background finished in a permanent steel-gray color. A few other special finishes can also be supplied, for description of which see page 175.



No. 2279—2¼x1¾ inch.



No. 2275—1¼x2 inch.



No. 2270—1¼x1¾ inch.

Inside Blind Butts.

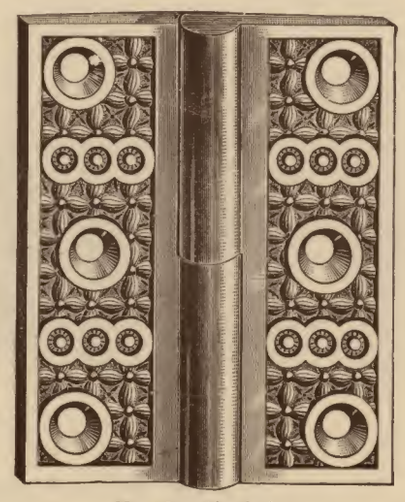
	Fast Joint.		
No.	**2273**	**2279**	
Size, inch,	2x1½	2¼x1¾	
Per pair,	.....	.....	

Fast Joint. Square Edges.
No. 2275.

Size, inch,	1¼x2
Per pair,	.....

Fast Joint. Bevel Edges.
No. 2270.

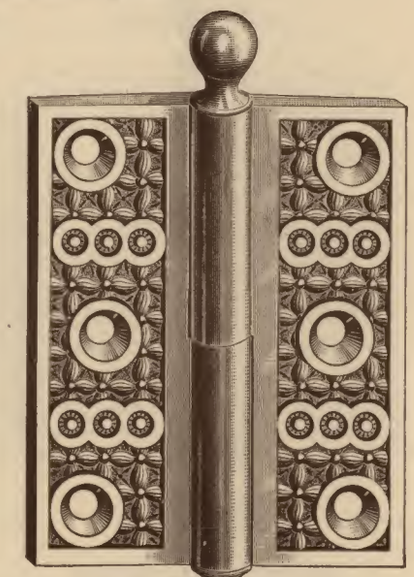
Size, inch,	1¼x1¾
Per pair,	.....



No. 2281—2½x2 inch.

Loose Joint.
No. 2281.

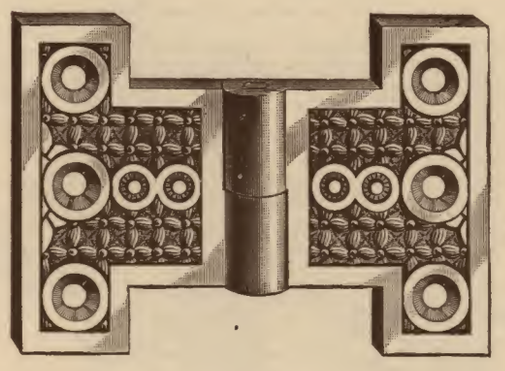
Size, inch,	2½x2
Per pair,	.....



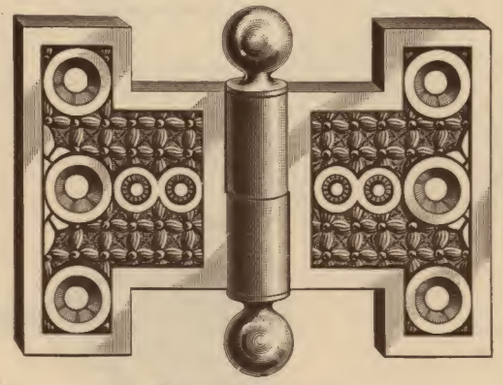
No. 2282—2½x2 inch.

Loose Joint.
No. 2282.

Size, inch,	2½x2
Per pair,	.....



No. 2285—1¾x2½ inch.

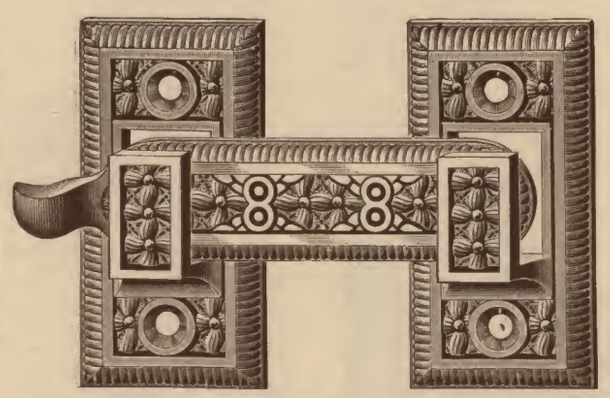


No. 2294—1¾x2½ inch.

Parliament Butts.

Loose Joint.

	Without Tips.			With Bronze Metal Ball Tips.			
No.	**2285**	**2288**	**2291**	**No.**	**2294**	**2297**	**2300**
Size,	1¾x2½	2x3	2¼x3½	Size,	1¾x2½	2x3	2¼x3½
Per pair,	.....	.....	.....	Per pair,	.....	.....	.....



No. 2580—2½ inch.

Reversible Shutter Bars.

No. 2578—2 inch, each, ...
2580—2½ inch, each, ...



No. 2293—⅞ inch.

Shutter Knobs.

No. 2293— ⅞ inch, per doz. .....
2297—1 inch, per doz. .....
2298—1⅛ inch, per doz. .....
2299—1¼ inch, per doz. .....

Department of Venetian Blinds.

Pages 191 to 232.


Bimer
ENG. Co.
MILWAUKEE · CHICAGO

VENETIAN BLINDS.

WEBSTER'S UNABRIDGED DICTIONARY—Venetian Blind, a blind for windows, doors, etc., made of thin slats set in a frame, often movable on end-pins, and so disposed as to overlap each other when close, and to show a series of open spaces for the admission of air and light when in other positions.

AMERICAN ENCYCLOPÆDIC DICTIONARY—Venetian Blind, a louver shutter or blind made of slats with spaces between them to admit air. In some cases the slats are fixed at a certain angle in the shutter; in other cases they are movable, to allow the passage of more or less air and light. The suspended blind has cords for support, and others for changing the positions of the slats.

THE term Venetian Blinds, in colloquial language and as now commonly understood, denotes a species or class of Blinds composed principally of a series of thin wooden slats, laterally arranged in woven ladder-tapes, suspended from the top, and connected by cords for the purpose of opening and closing the blind and the slats in the blind. A Venetian Blind is practically a window-shade made of wooden slats instead of cloth or other textile fabric. Venetian Blinds have been in use for probably a hundred years or more, being originally brought out in Europe. The most common form or style in use is the same as or at least similar to that used in England, where, proportionately, there are probably more Venetian Blinds used than in any other country —hence we usually term this common form or style, English Venetian Blinds.

Besides this regular English Venetian Blind, we make a form or style of our own, Willer's Sliding Venetian Blind, in which the slats are not drawn up by taking hold of the elevating cords, but where one takes hold of the lower or lifting bar of the Blind for the purpose of opening and closing it. We make two varieties of this form or style of Blind, each requiring a different construction of the window-frame; one is intended for small and medium-sized windows and is balanced by springs, and the other is intended for medium-sized as well as larger-sized windows and is balanced by the co-operation of springs and weights.

The following are the titles and the technical names we have adopted for the different kinds and forms of Venetian Blinds we make:

Willer's English Venetian Blinds,

Willer's Favorite (spring-balanced) Sliding Venetian Blinds,

Willer's Peerless (weight-balanced) Sliding Venetian Blinds.

We furnish all of our Venetian Blinds in two grades of Finishes: 1st, Plain Finish, having a gloss or varnished surface, and 2d, Cabinet Finish, having the surface rubbed down with pumice stone and oil to a smooth dead finish. We also furnish these blinds in any kind of wood.



Appearance of Willer's English Venetian Blind, as applied to a Window of ordinary size.

WILLER'S

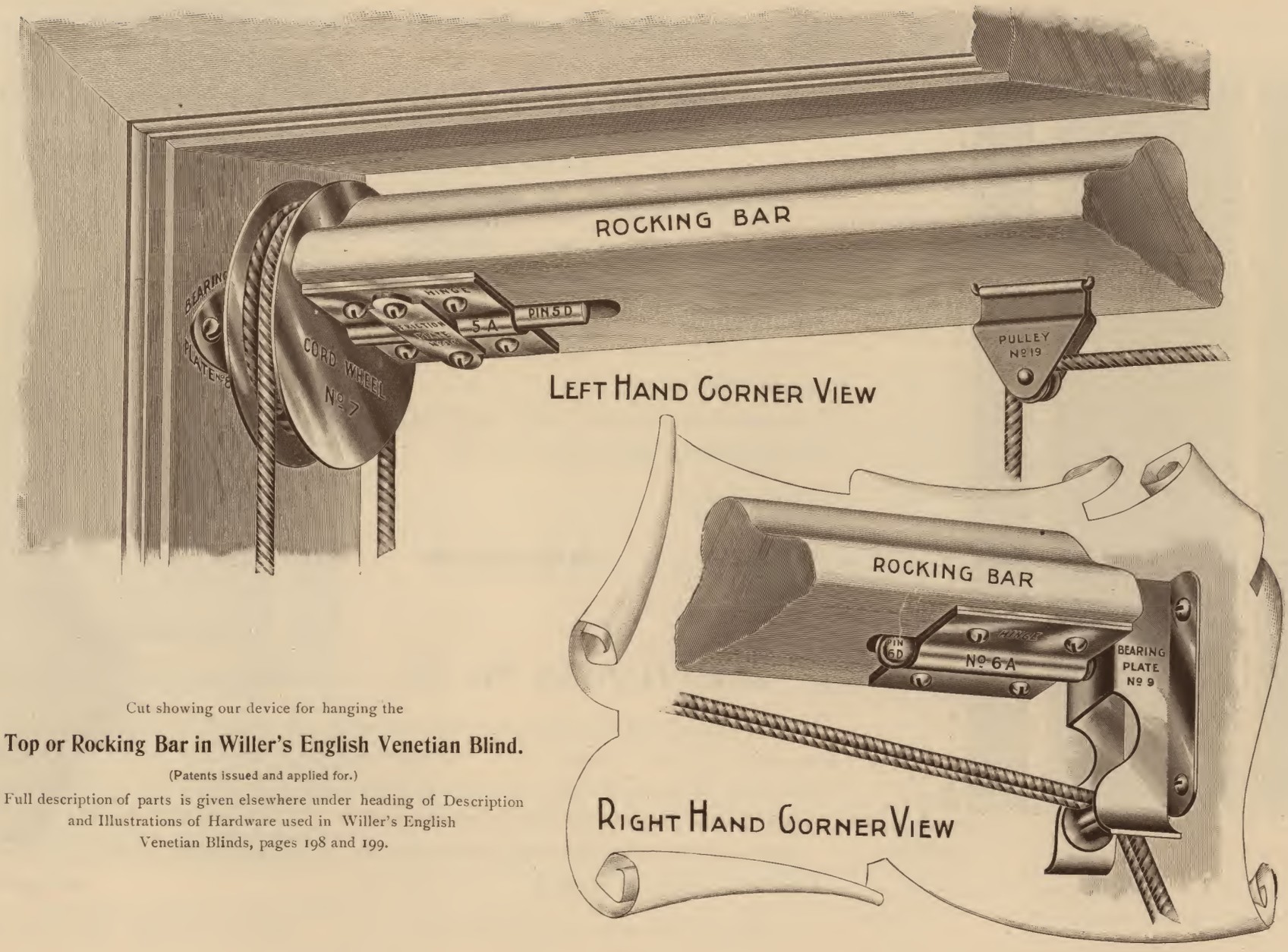
ENGLISH VENETIAN BLINDS.

(Patents Issued and Pending.)

THE common form of Venetian Blind, the English Venetian Blind, is made by several manufacturers in this country, and in general appearance and construction and in the general manipulation of the blind, there is but little difference between any of them. They vary only in their different methods of hanging or manner in which they are applied to the window, and in the quality of their material and workmanship. In these two respects, which are the main or chief requisites in any well made Venetian Blind, Willer's English Venetian Blind is equal to any and superior to most of the different makes on the market. We have only within the last two years commenced the making of Venetian Blinds, and if we were not sure of the fact, that the supply in respect to quality was deficient and that there is yet sufficient room in this country for a good Venetian Blind, we would not have entered into this branch of the business.

All the constituent parts of our device for hanging these blinds, as well as the grade and quality of the cords and the woven ladder tape that we use, are fully illustrated and described in the following pages of this catalogue. We explicitly show and describe everything that we make and furnish, so that customers may know exactly what they are going to receive from us.

Since the annexed engraving was made, we have discarded the use of the two handles and the cord-pulley shown on the left-hand side in the engraving. We have found these entirely useless and apt to interfere with the slats when pulling up or letting down the Blind. This cord, which is used only to turn the slats, now hangs down loosely on the side of the window. This remark pertains also to all other cuts of Venetian Blinds shown herein.

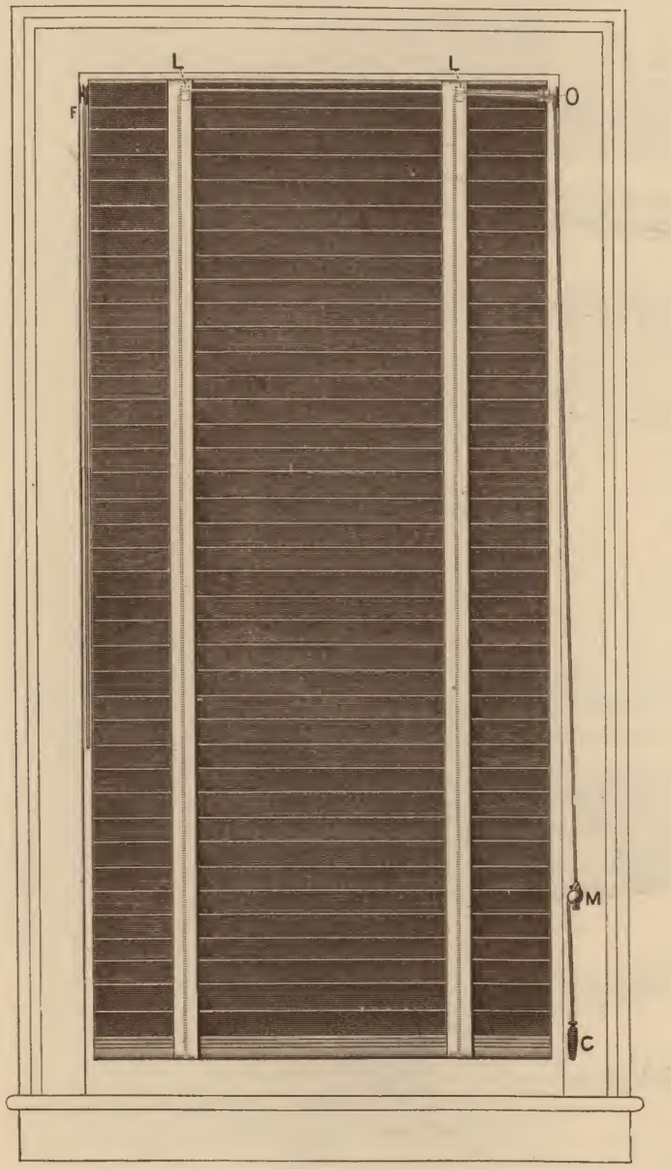


Cut showing our device for hanging the

Top or Rocking Bar in Willer's English Venetian Blind.

(Patents issued and applied for.)

Full description of parts is given elsewhere under heading of Description and Illustrations of Hardware used in Willer's English Venetian Blinds, pages 198 and 199.



THE ACCOMPANYING ENGRAVING REPRESENTS

WILLER'S ENGLISH VENETIAN BLIND,

AS WE FURNISH IT COMPLETE, READY FOR USE.

F represents the positions of Blind Hinge No. 5, Cord Wheel No. 7 and Hinge Support No. 8.

O represents the positions of Blind Hinge No. 6 and Hinge Support No. 9.

LL represent Cord Pulleys No. 19.

M represents Cord Holder No. 2 (which can also be Cord Holder No. 1).

C represents Cord Handle No. 15.

CORD HANDLE No. 15.

This is made of wood and is fastened to ends of elevating cords. It is furnished only with English Venetian Blinds. The ball-shaped part of the handle is made hollow and the acorn-shaped end can be taken off, enabling one to tie a knot and fasten the handle to the cords wherever required.

Unless otherwise ordered, this Handle will be furnished of the same wood and finish as is ordered for the Blinds.



Full-size Cut of
Cord Handle No. 15.



Appearance of a Window fitted with Willer's Favorite or Peerless Sliding Venetian Blinds, running into a Top Pocket.

VENETIAN BLIND LADDER TAPE, AND VENETIAN BLIND CORD.

IN all our Venetian Blinds, we use only the best Tape and Cord that is made for the purpose. The kind that we now use is called "The Crown Superior All Woven Ladder Tape," and "The Crown Braided Cord." This is manufactured in the United States, and we warrant it equal, if not superior, to any imported English or German goods.

Of the Tape we carry in stock two sizes: Size **A** for 2-inch wide slats, and Size **D** for 2½-inch wide slats; of the Cord we carry in stock but one size, suitable for all purposes.

Of all of the above we carry in stock the following colors: Buff (light-brown or dark-yellow); Drab (medium shade); Cinnamon (dark-brown); Variegated Buff and Dark-Brown (darker than cinnamon).

Samples of any or all of the above will be supplied upon request.

The accompanying cut represents the appearance of a window in which either **Willer's Favorite (spring-balanced) or Willer's Peerless (weight-balanced) Sliding Venetian Blinds slide into a Top Pocket** specially provided for this purpose. The proper construction of the window-frame for this purpose is shown by Detail No. 1106, page 216, and Detail No. 1202, page 228, and by Sections and Elevations of Removable Top Panel, Plans A and B, pages 230 and 231. Make the open space at the top for Blinds to pass through as wide as the space will permit to allow the free passage of the slats and tapes. The height of pocket should be about 12 inches for a 7 feet high window; for other size windows in proportion. The exact height of pocket is immaterial, as the Blinds may project some from the opening without detracting from the appearance of the window.

Description of Hardware used in Willer's English Venetian Blinds.

SEE ILLUSTRATIONS OF HARDWARE ON NEXT PAGE.

Venetian Blind Hinge, No. 5. — This is secured to the lower side and at the left-hand edge of the top or Rocking Bar. The parts shown, 5A and 5C, are wrought out of sheet bronze metal, Under Plate 5B is stamped out of sheet steel, and Pin 5D is of Cast Iron, Bronze-plated. Pin 5D lies between Under Plate 5B and Over Plate 5A, both of which are provided with channels for that purpose. Over Plate 5A is provided with an opening, over which Friction Plate 5C is placed. This Friction Plate bears against Pin 5D, and by proper use of the screws, can be regulated so as to give more or less friction while turning the bar, thus affording means for holding open the slats in the blind at any given angle. Pin 5D is made sufficiently long and can be moved forward and back to allow for any small irregularities that may occur in the measurements or size of the blind.

Venetian Blind Hinge, No. 6. — This is secured to the lower side and at the right-hand edge of the top or Rocking Bar. The Over Plate 6A is made of sheet bronze metal, the Under Plate 6B of sheet steel, and the Pin 6D of Cast Iron, Bronze-plated. Pin 6D lies between Over Plate 6A and Under Plate 6B and is provided with a ball at its one end to prevent the bar from moving sideways.

Cord Wheel, No. 7. — This is also made of sheet bronze metal and is permanently secured to the left-hand edge of the bar by screws. This cord wheel is used to turn the slats in the blind; the proper method of fastening the cord thereon is fully shown in cut.

Hinge Support, No. 8. — This is also made of sheet bronze metal and is secured on the jamb of the window, left-hand side. The head of Pin 5D in Blind Hinge No. 5, is made to engage in the slot shown in cut. The proper position of this support on the jamb of the window is shown in Details V2 and V3, pages 202 and 203.

Hinge Support, No. 9. — This is also stamped out of sheet bronze metal and is secured on the jamb of the window, right-hand side. The head of Pin 6D in Blind Hinge No. 6, is made to engage in the slot shown in cut. The proper position of this support on the jamb of the window is also shown in Details V2 and V3, pages 202 and 203. The elevating cords of the blind pass over the turned pulley or wheel shown in cut, and the lower ends of the support are rounded off to prevent chafing and wear of the cords.

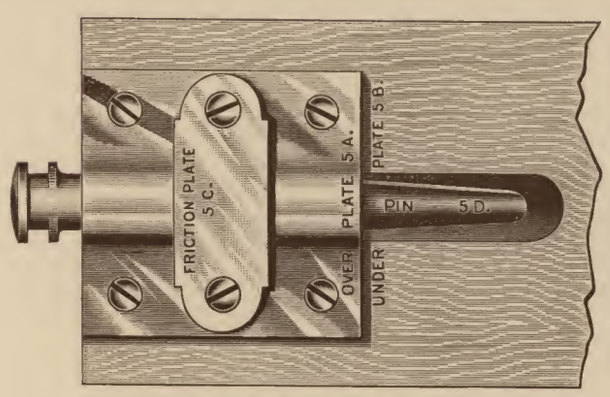
Cord Holder, No. 1. — This is also made of sheet bronze metal and is placed on the casings at some convenient place on the right-hand side of the window. It is used to securely hold the elevating cords in place after having pulled up the blind, and thereby hold up the blind. Only one Cord Holder is required for each window, and we will furnish either No. 1 or No. 2, whichever may be preferred.

Cord Holder, No. 2. — This is only another style or form of Cord Holder. It is made of cast bronze metal and is also placed on the casings at some convenient place on the right-hand side of the window. When placing this holder, fasten it so that the hook is turned upward. One or two turns of the cord around the hook will securely fasten it and hold the blind open at any point. Only one Cord Holder is required for each window, and we will furnish either No. 1 or No. 2, whichever may be preferred.

The Standard Finish for all of the above Hardware is Bronze, natural color; polished finish for all cast metal goods and dip finish for all goods made of sheet bronze. We also furnish these goods in Antique Copper and Nickel-plated Finish upon special order at extra cost.

Illustrations of Hardware used in Willer's English Venetian Blinds.

FOR DESCRIPTION SEE PRECEDING PAGE.

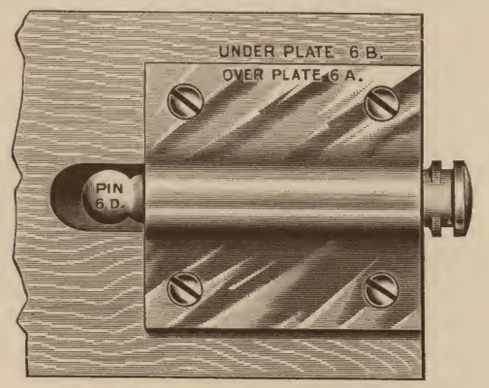


Venetian Blind Hinge No. 5.

For use on left-hand end of Upper or Rocking Bar, comprising the following parts:

Over Plate, 5A, Under Plate, 5B,
Friction Plate, 5C, Pin, 5D.

4 Screws, ⅝ in , No. 6, Round Head.
2 " ⅞ " " " "

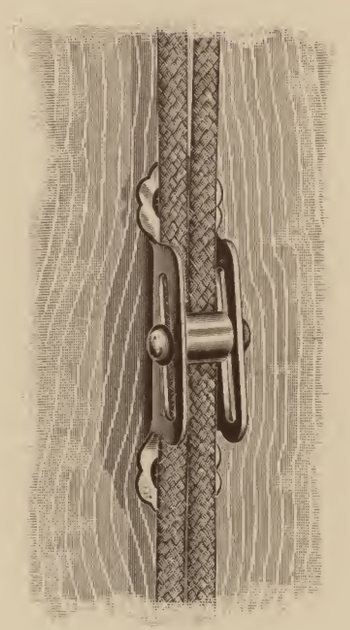


Venetian Blind Hinge No. 6.

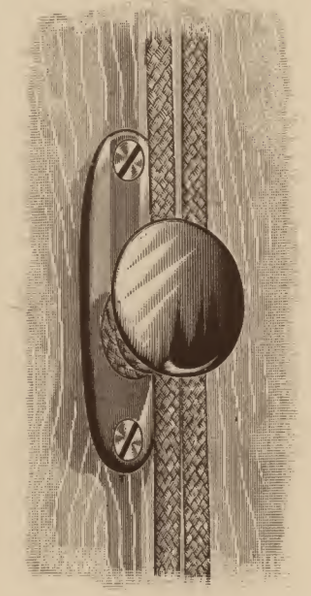
For use on right-hand end of Upper or Rocking Bar, comprising the following parts:

Over Plate, 6A, Under Plate, 6B,
Pin, 6D.

4 Screws, ⅝ in., No. 6, Round Head.



Cord Holder No. 1.

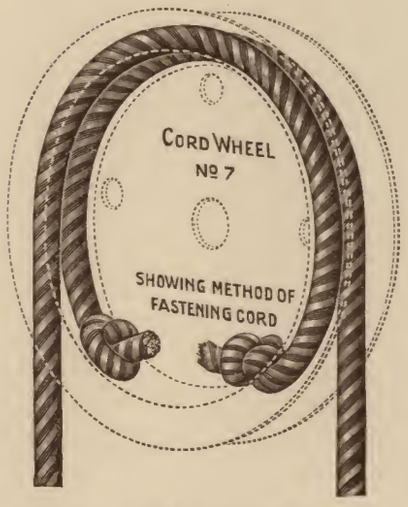


Cord Holder No. 2.



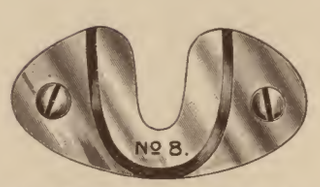
Cord Wheel No. 7.

For use on left-hand end of Upper or Rocking Bar.



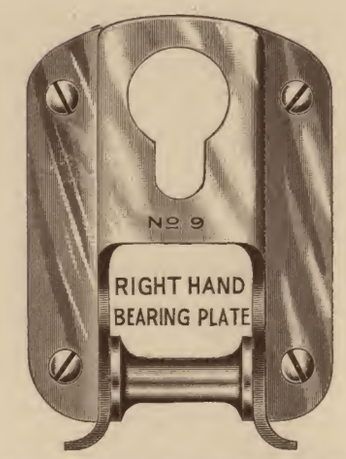
Cut showing method of fastening the cord to

Cord Wheel No. 7.



Hinge Support (or Bearing Plate) No. 8.

For use on left-hand side of window.

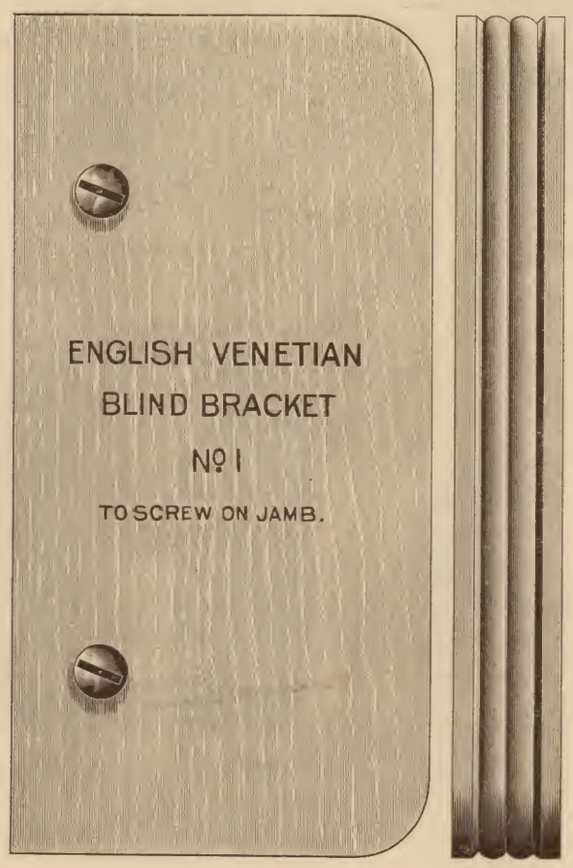


Hinge Support (or Bearing Plate) No. 9.

For use on right-hand side of window.

Methods of Hanging Willer's English Venetian Blinds.

THE manner in which these Blinds are applied to a window, necessitates the presence of a sufficiently wide flat space on which to apply the Hinge Supports (or Bearing Plates) Nos. 8 and 9. Where such a space does not exist in the jamb of the window, it can easily be provided for by the use of brackets applied to either the side or front of the window. That we may correctly understand the condition of each window or window-frame for which these Blinds are ordered, and to facilitate such ordering, we have adopted different methods of hanging, designating each different method by a given number. Venetian Blind Brackets Nos. 1, 2 and 3, where required, will be furnished without extra charge. Venetian Blind Cornice No. 4, where required, costs extra. All of these, unless distinctly otherwise ordered, will be furnished of the same wood and finish as is ordered for the Blinds.



Method of Hanging No. 1.

This provides for the Blinds hung between the window-jambs proper, as shown by Detail V 3, page 202. When ordering, state exact width between these jambs.

Method of Hanging No. 2.

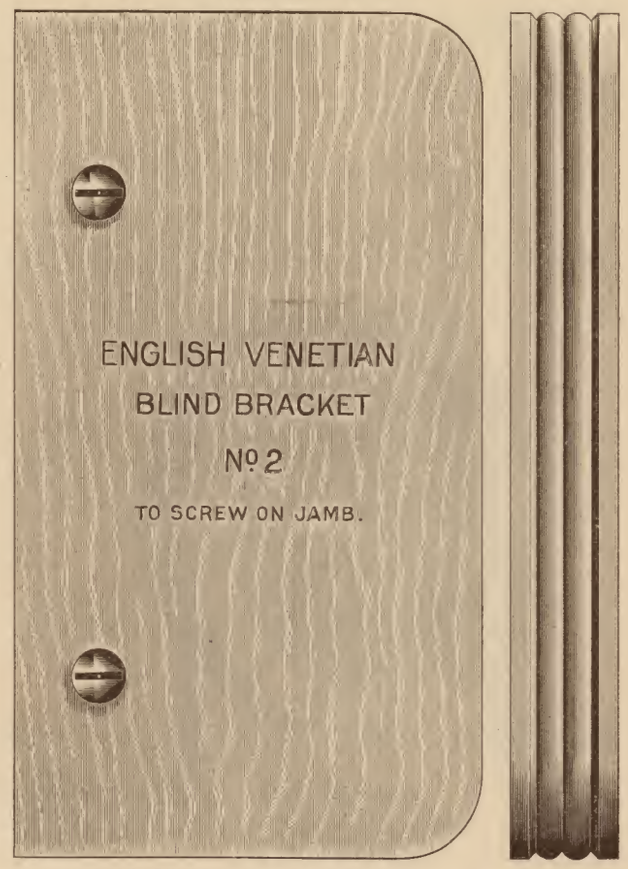
This also provides for the Blinds hung between the jambs of the window, in which however the flat space is not sufficiently wide for the proper application of the Hinge Supports. The necessary space is obtained by the use of small brackets applied to each corner of the window, as shown by Detail V 2, page 203. Bracket No. 1 is intended for blinds with 2 inch slats, and Bracket No. 2 for blinds with 2½ inch slats; full-size cuts of both are printed on this page. When ordering, state width between jambs, we making our own allowance for the thickness of or for the space occupied by the Brackets.

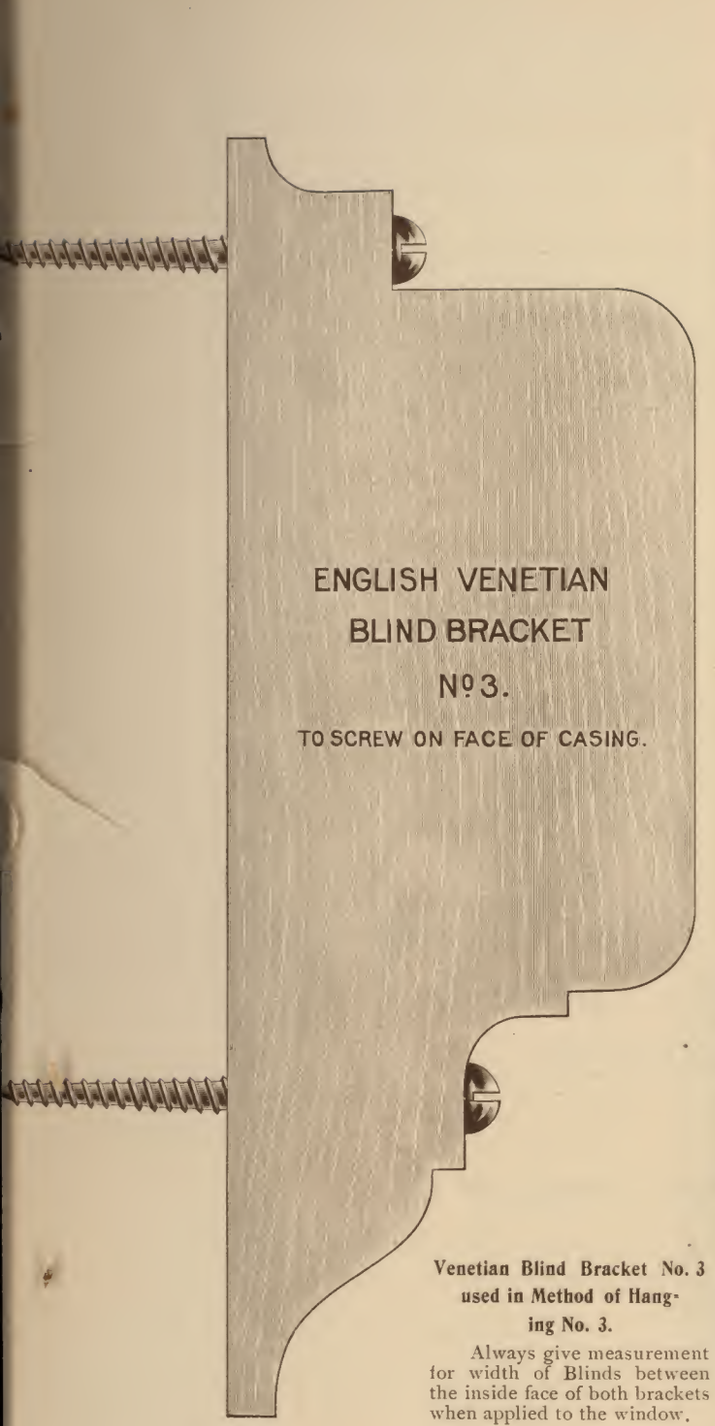
Method of Hanging No. 3.

This provides for the Blinds hung in front of casings, by securing Venetian Blind Bracket No. 3 on the face of the casings. When ordering, state the exact width for the blinds between the inside face of the two brackets when secured to the window.

Method of Hanging No. 4.

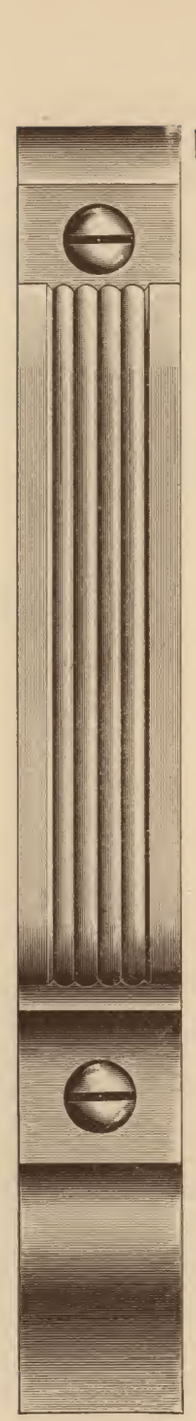
This also provides for Blinds hung in front of casings, by securing Venetian Blind Cornice No. 4 on the face of the casings. When ordering, state the exact width for the blinds between the inside face of the two brackets of the cornice when said cornice is secured to the window.





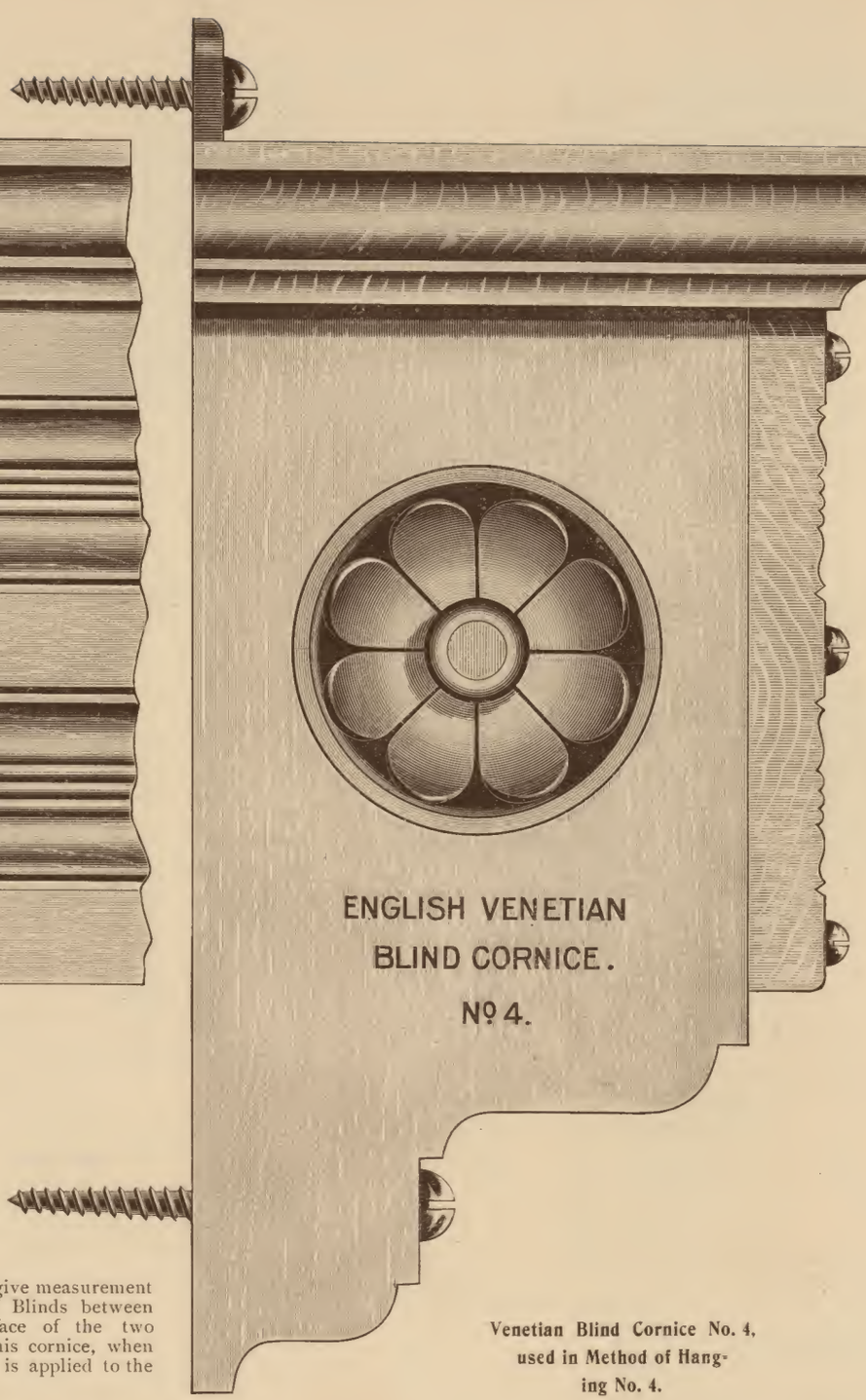
Venetian Blind Bracket No. 3 used in Method of Hanging No. 3.

Always give measurement for width of Blinds between the inside face of both brackets when applied to the window.





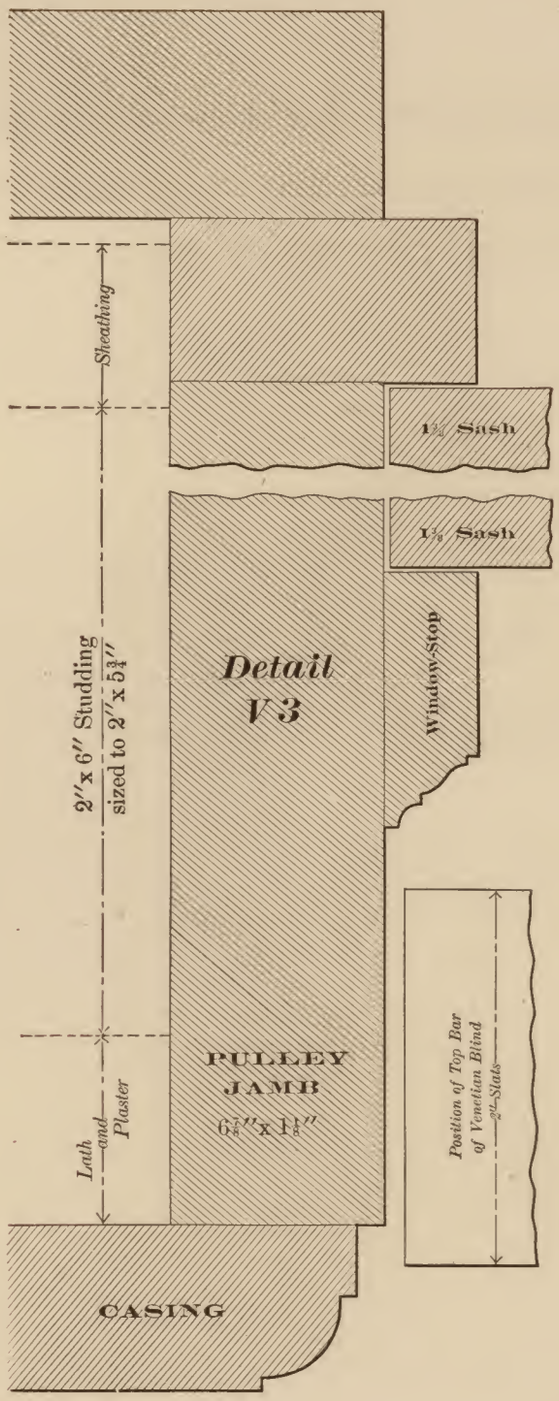
Always give measurement for width of Blinds between the inside face of the two brackets in this cornice, when such cornice is applied to the window.

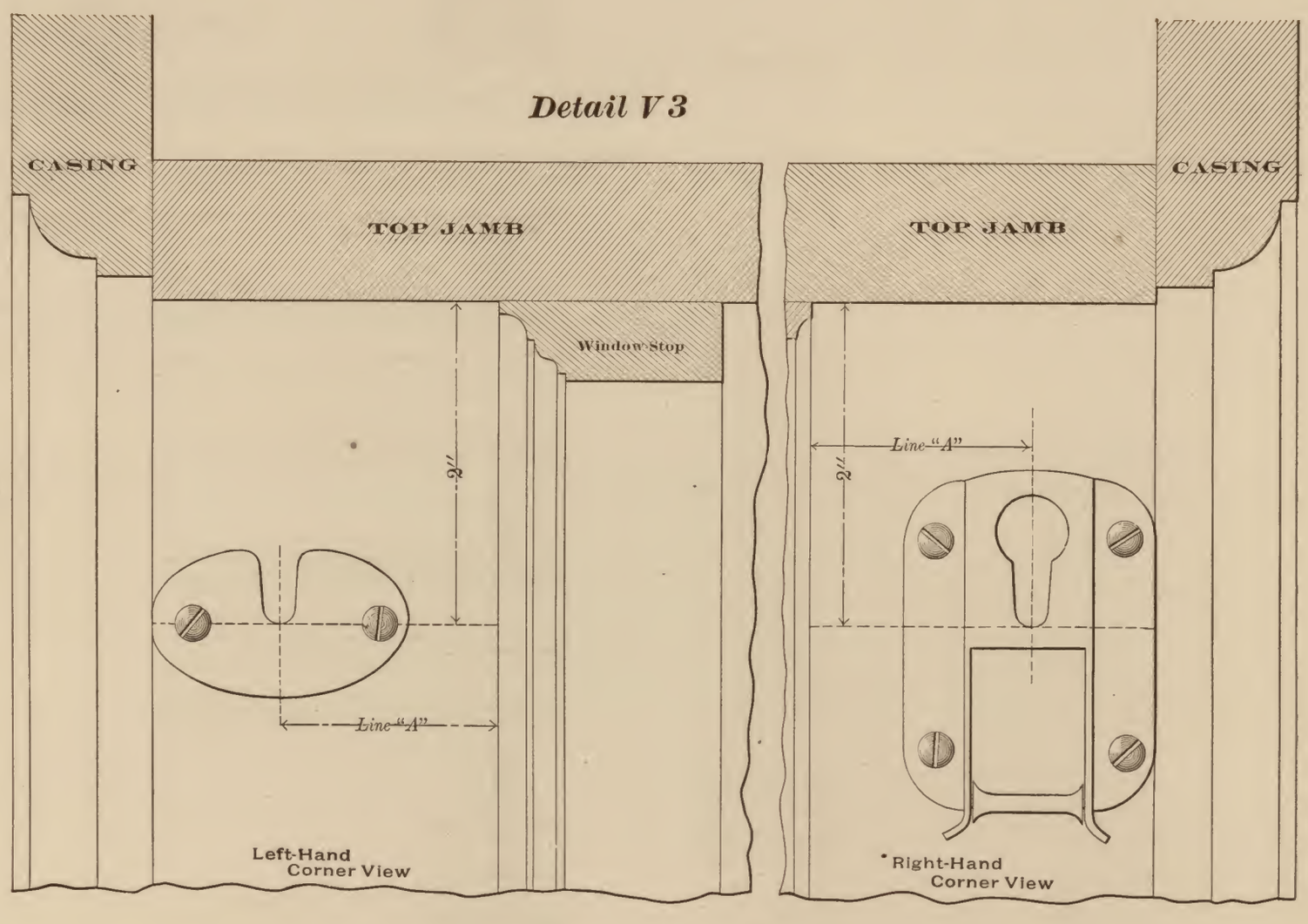


Venetian Blind Cornice No. 4, used in Method of Hanging No. 4.

Methods of Hanging Willer's English Venetian Blinds.

See description on preceding page.

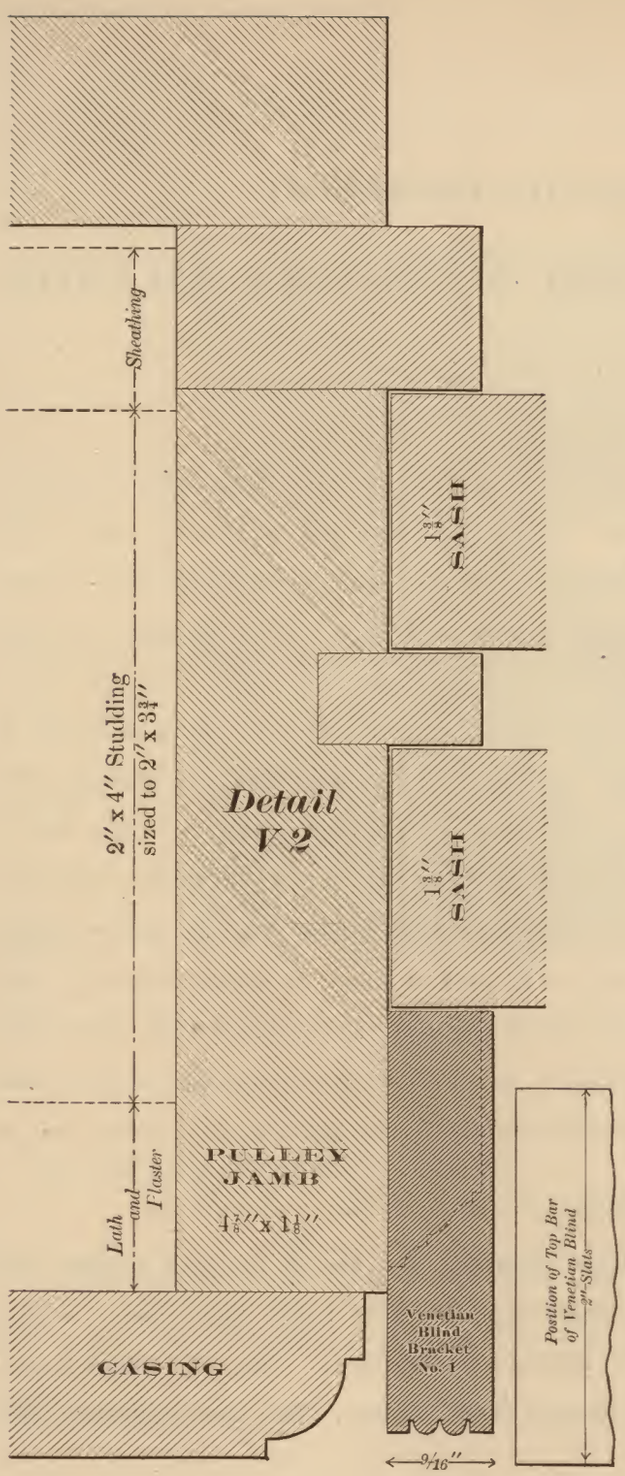


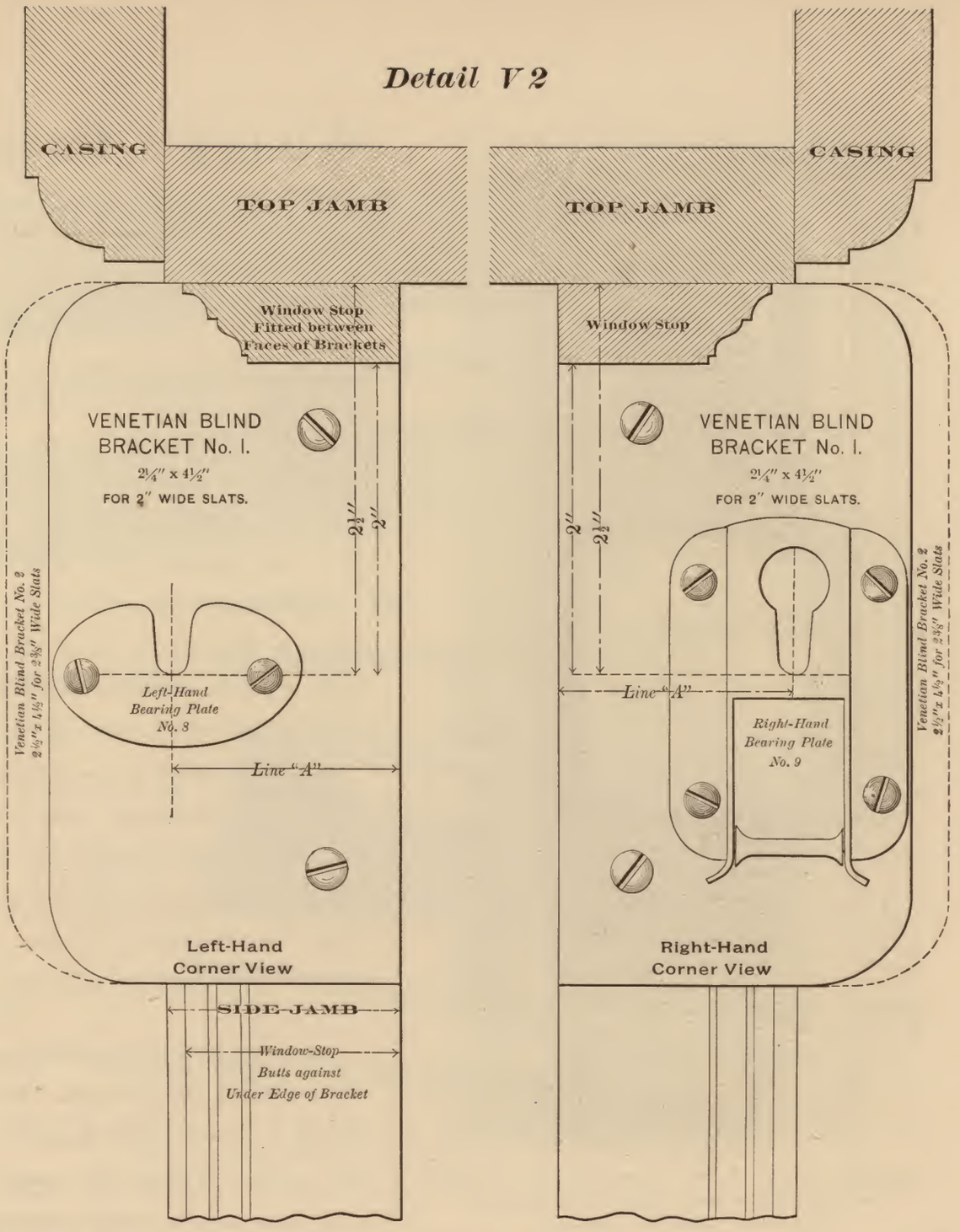


Methods of Hanging Willer's English Venetian Blinds—Method of Hanging No. 1.

Showing the proper manner of applying the Hinge Supports (or Bearing Plates) Nos. 8 and 9, on the jambs of a window having a sufficiently wide flat surface for that purpose. The space on line "A" must not be less than size shown, but can be more if space permits.

See page 200 for further description.





Methods of Hanging Willer's English Venetian Blinds—Method of Hanging No. 2.

Showing the proper manner of applying and fitting Venetian Blind Brackets Nos. 1 and 2 on the jamb of a window not having a sufficiently wide flat surface on which to secure the Hinge Supports (or Bearing Plates.) See page 200 for further description.



Appearance of Willer's Favorite (spring-balanced) and Willer's Peerless (weight-balanced) Sliding Venetian Blinds as applied to a Window of ordinary size.

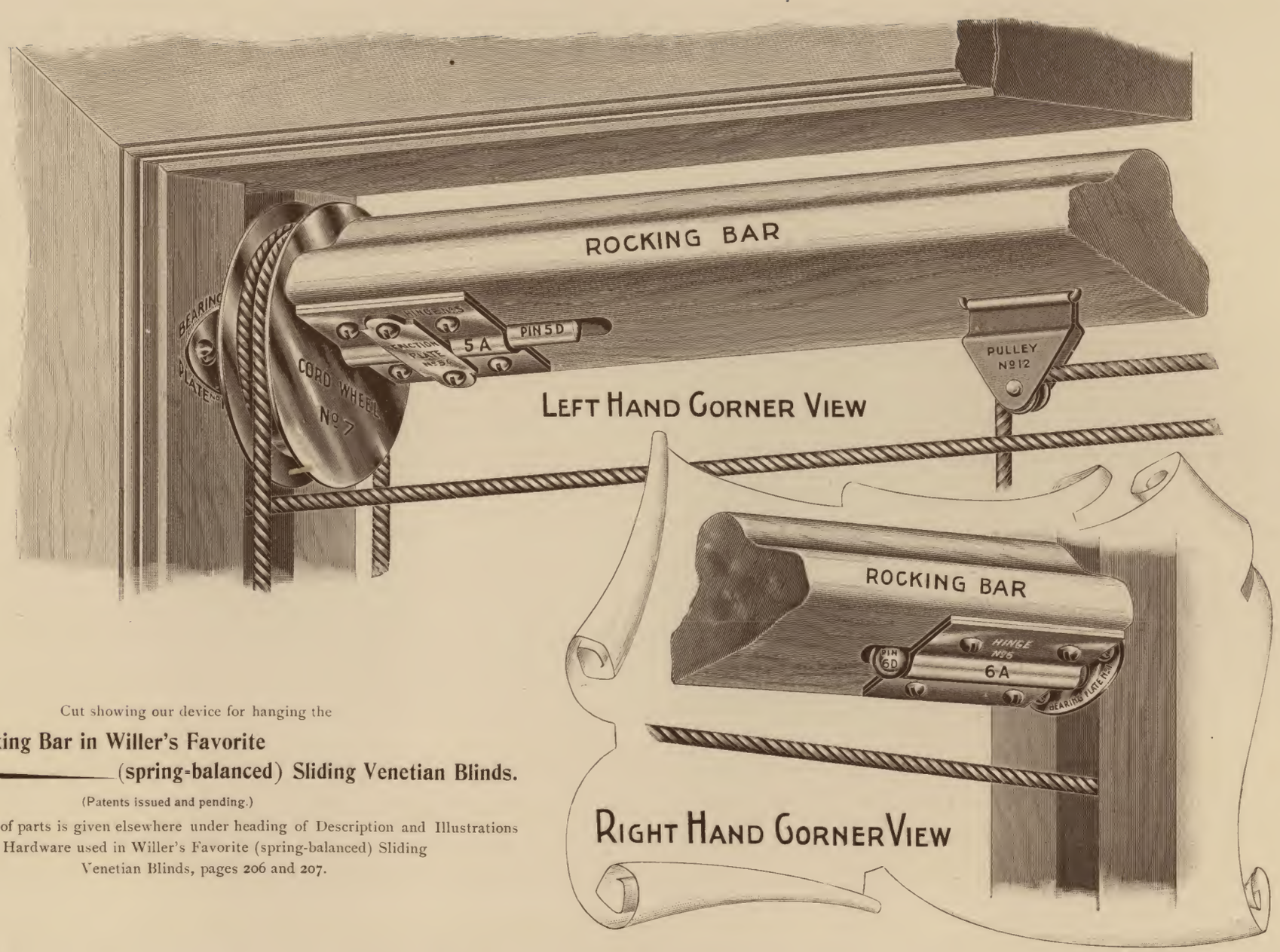
WILLER'S FAVORITE (spring-balanced) SLIDING VENETIAN BLINDS.

(Patents Issued and Pending.)

THIS new form of Venetian Blind differs from the common or English form principally in the method employed for opening and closing the blind. As indicated by its title, the Blind is made to slide up and down in the window. The window-frame is provided with grooved guide-ways of special construction; the lower bar, which is made sufficiently strong and heavy for the purpose, is provided with adjustable springs at its both ends, concealed from view, which springs bear against a wooden friction-block sliding in the grooves of the guide-ways. To open the Blind, you take hold of the lower bar and lift it up, and the Blind will then remain open at any desired point in the window. To close the Blind, you take hold of the handle or handles attached to the lower bar and pull it down. The cords are so arranged and attached to the Blind as to form a continuous or endless chain or circuit, for complete description and illustration of which, see Fig. 2 page 211.

This form of Blind does not necessarily require any special construction of the window-frame and can be applied to any window-frame having a space of not less than 2½ inches on its jamb, as shown in full-size Detail No. 1100, page 212; it is better however, and will add much to the general appearance and usefulness of the Blind, if the window-frame is made with an extension or false jamb set back 1⅛ inch from the face of the pulley-jamb or jamb proper; this will enable you to place guide-ways for Blind independently of and away from the window-stop, as shown in full-size Detail No. 1105, page 214.

Since the annexed engraving was made, we have discarded the use of the two handles and the cord-pulley shown on the left-hand side in the engraving. We have found these entirely useless and apt to interfere with the slats when pulling up or letting down the Blind. This cord, which is used only to turn the slats, now hangs down loosely on the side of the window. This remark pertains also to all other cuts of Venetian Blinds shown herein.



Cut showing our device for hanging the

Top or Rocking Bar in Willer's Favorite

(spring-balanced) Sliding Venetian Blinds.

(Patents issued and pending.)

Full description of parts is given elsewhere under heading of Description and Illustrations of Hardware used in Willer's Favorite (spring-balanced) Sliding Venetian Blinds, pages 206 and 207.

DESCRIPTION OF HARDWARE USED IN

Willer's Favorite (spring-balanced) Sliding Venetian Blinds.

SEE ILLUSTRATIONS OF HARDWARE ON NEXT PAGE.

Venetian Blind Hinge, No. 5. — This is secured to the lower side and at the left-hand edge of the top or Rocking Bar. The parts shown, 5A and 5C, are wrought out of sheet bronze metal, Under Plate 5B is stamped out of sheet steel, and Pin 5D is of Cast Iron, Bronze-plated. Pin 5D lies between Under Plate 5B and Over Plate 5A, both of which are provided with channels for that purpose. Over Plate 5A is provided with an opening, over which Friction Plate 5C is placed. This Friction Plate bears against Pin 5D, and by proper use of the screws, can be regulated so as to give more or less friction while turning the bar, thus affording means for holding open the slats in the blind at any given angle. Pin 5D is made sufficiently long and can be moved forward and back to allow for any small irregularities that may occur in the measurements or size of the blind.

Venetian Blind Hinge, No. 6. — This is secured to the lower side and at the right-hand edge of the top or Rocking Bar. The Over Plate 6A is made of sheet bronze metal, the Under Plate 6B of sheet steel, and the Pin 6D of Cast Iron, Bronze-plated. Pin 6D lies between Over Plate 6A and Under Plate 6B and is provided with a ball at its one end to prevent the bar from moving sideways.

Cord Wheel, No. 7. — This is also made of sheet bronze metal and is permanently secured to the left-hand edge of the bar by screws. This cord wheel is used to turn the slats in the blind; the proper method of fastening the cord thereon is fully shown in cut.

Hinge Support, No. 1. — This is also made of sheet bronze metal. Two pieces are required for every window, one on the left-hand and one on the right-hand side of the window. They are secured to the face of the grooved Guide-ways near the top of the window, and the Pins in both Blind Hinges, Nos. 5 and 6, are made to engage in the slot shown in cut. The proper position of each support on the face of the grooved Guide-way, is shown by cut Fig. 4 on page 211.

Face Plate, No. 3. — This is also made of sheet bronze metal and is secured to both ends of the lower or Lifting Bar of the Blind, one piece on each end. Its purpose is to keep in place Venetian Blind Spring No. 25, described and illustrated on pages 208 and 209.

Lower or Lifting Bar Handle, No. 24. — This is made of cast bronze metal and is secured to the lower or Lifting Bar of the Blind for the purpose of pulling down the Blind when it is up. One or two are required for each set of Blinds according to the width of window.

Guide-way Pulley, No. 21. — This is the Norris Patent Pulley. Four of these are required for each set of Blinds, two on each side of the window, top and bottom, for the cords to pass over. This particular 1 inch pulley is used for Willer's Favorite (spring-balanced) Sliding Venetian Blinds only, and is placed in the grooves of the Guide-ways furnished with these blinds. We furnish the Guide-ways with the pulleys secured therein by us.

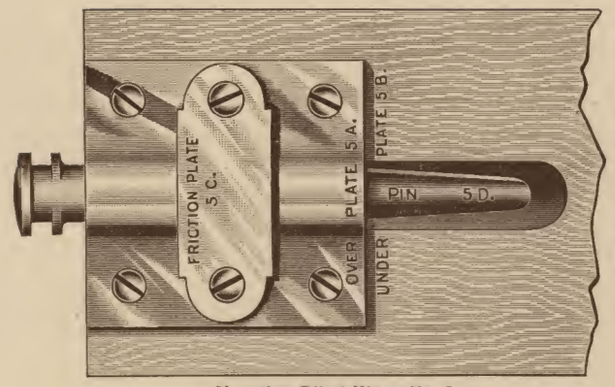
The Standard Finish for Pulley No. 22 is Iron, Berlin Bronze. We can also furnish this pulley in the following Special Finishes, where so specially ordered, at extra price: No. 21 A—Iron, Bronze-plated face and wheel; No. 21 B—Iron, Brass-plated face and wheel; No. 21 C—Iron, Nickel-plated face and wheel; No. 21 D—Iron, Antique Copper-plated face and wheel; No. 21 E—Iron, Steel-blue finish; No. 21 F—All Bronze metal face and wheel; No. 21 G—All Brass metal face and wheel; No. 21 H—Bronze metal, Antique Copper finish; No. 21 J—Bronze metal, Nickel-plated finish; No. 21 K—Bronze metal, Oxidized Silver finish.

The Standard Finish for all other Hardware is Bronze, natural color; polished finish for all cast metal goods and dip finish for all goods made of sheet bronze. We also furnish these goods in Antique Copper and Nickel-plated finish upon special order at extra cost.

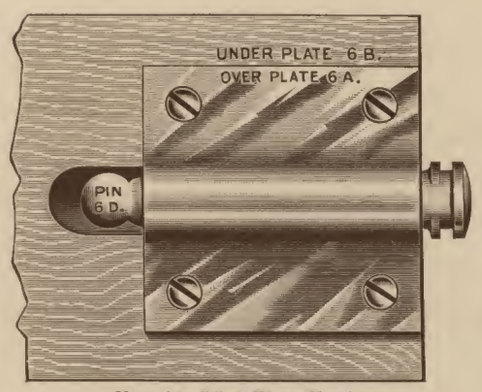
ILLUSTRATIONS OF HARDWARE USED IN

Willer's Favorite (spring-balanced) Sliding Venetian Blinds.

FOR DESCRIPTION SEE PRECEDING PAGE.



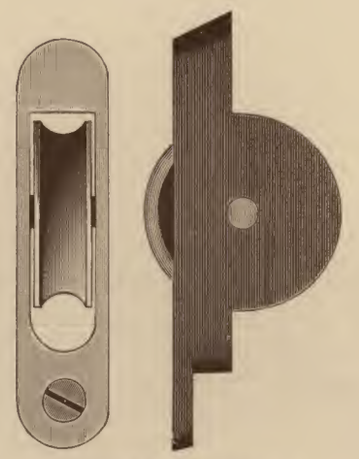
Venetian Blind Hinge No. 5.
For use on left-hand end of Upper or Rocking Bar, comprising the following parts:
Over Plate, 5A, Under Plate, 5B,
Friction Plate, 5C, Pin, 5D.
4 Screws, ⅝ in., No. 6, Round Head.
2 " ⅞ " " " "



Venetian Blind Hinge No. 6.
For use on right-hand end of Upper or Rocking Bar, comprising the following parts:
Over Plate, 6A, Under Plate, 6B,
Pin, 6D.
4 Screws, ⅝ in., No. 6, Round Head.



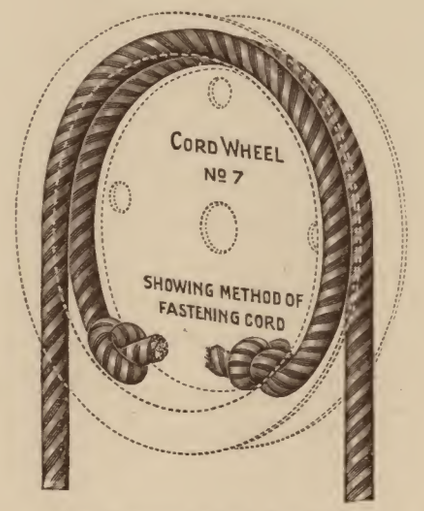
Face Plate No. 3.
Showing also full-size section of Lower or Lifting Bar.



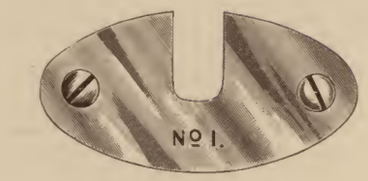
Guide-way Pulley No. 21.
1 inch single.



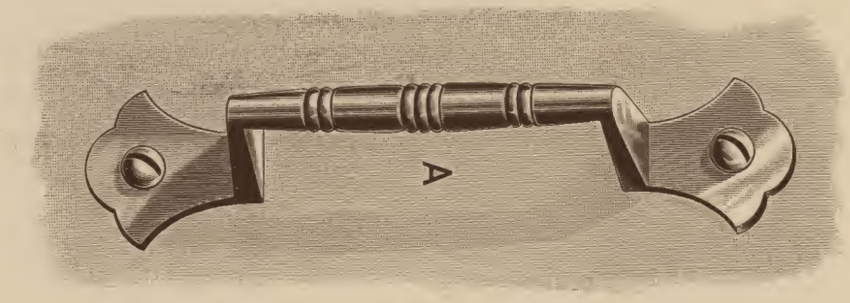
Cord Wheel No. 7.
For use on left-hand end of Upper or Rocking Bar.



Cut showing method of fastening the cord to
Cord Wheel No. 7.



Hinge Support No. 1.



Lower or Lifting Bar Handle No. 24.

Willer's Favorite (spring-balanced) Sliding Venetian Blinds.

DESCRIPTION OF LOWER OR LIFTING BAR USED IN ABOVE BLINDS.

SEE ILLUSTRATION ON NEXT PAGE.

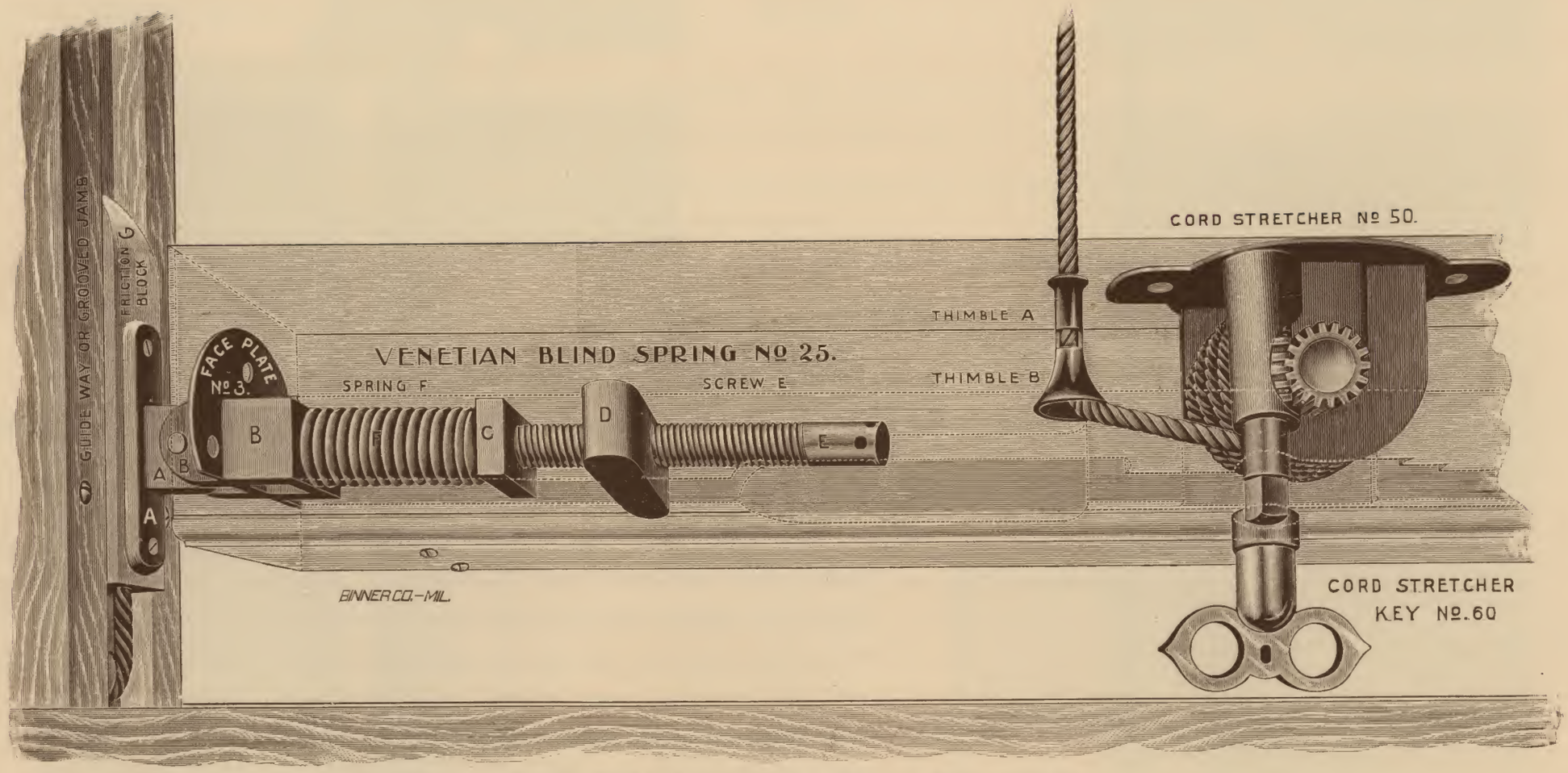
THE lower or Lifting Bar itself is shown only transparently in cut, giving an opportunity of presenting proper engravings of the parts used in the inside of the Bar. A full-size section or end-view of this Bar is shown in connection with illustration of Face-Plate No. 3, on page 207. The lower covering of this Bar is secured by round-headed screws and can at any time be easily removed for the purpose of getting at the parts inside.

Venetian Blind Spring, No. 25. — Two of these complete springs are used with each set of Blinds, one at each end of Bar. All parts to the right of Face Plate No. 3, are placed within the Bar; part A and a portion of Part B only projecting on the outside. Part A is secured to the wooden Friction Block G, sliding in the groove of the Guide-way in the window. Screw E is provided with holes in its head, enabling one, by the use of a wire nail or other suitable instrument, to turn it and made to move forward or back, thereby increasing or diminishing the power of the Spring F. The more this spring is contracted or pressed together, the more power is thereby developed towards holding up the Blind. In Willer's Favorite (spring-balanced) Sliding Venetian Blinds the holding up of the Blind rests solely upon this spring, which however is made sufficiently strong to hold up Blinds for all windows of not more than usual size, up to about 4 feet 6 inches to 5 feet wide and 7 to 8 feet high.

Cord Stretcher, No. 50. — After the Blind has been in use for a little while, the cords will stretch more or less, sometimes a little more on one side than on the other, throwing the Blind "out of square." By the use of this Cord Stretcher, the cords can always be kept taut and the Blind in a perfect working condition; a few turns of the key will generally do it.

When Blinds are just put up, this should be attended to quite often at short intervals, and be kept up until the cords are "out of stretch." The key (Cord Stretcher Key, No. 60) is furnished separately and a few will be supplied with every order. One should be hung up at some convenient place in every room where these Blinds are in use.

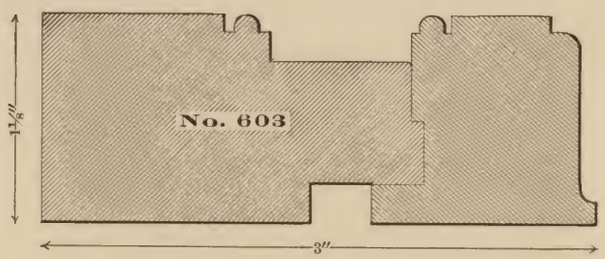
Thimbles A and B are placed in the bar to prevent the chafing and scratching of the cord.

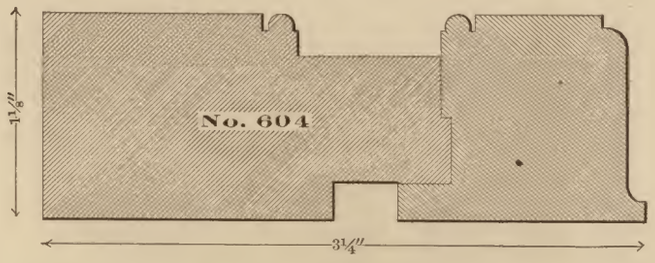


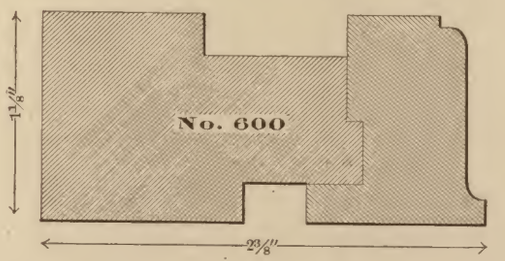
Full-Size Illustration of a Part of the Lower or Lifting Bar used in

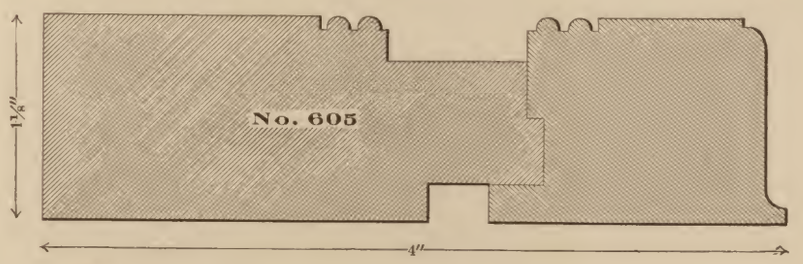
Willer's Favorite (spring-balanced) Sliding Venetian Blinds.

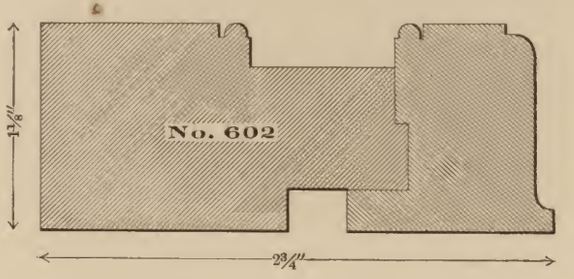
Together with the Hardware, etc., attached thereto. For description of parts, see preceding page.

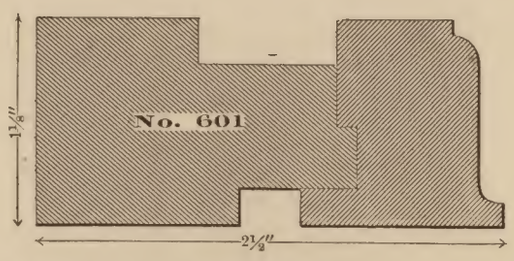


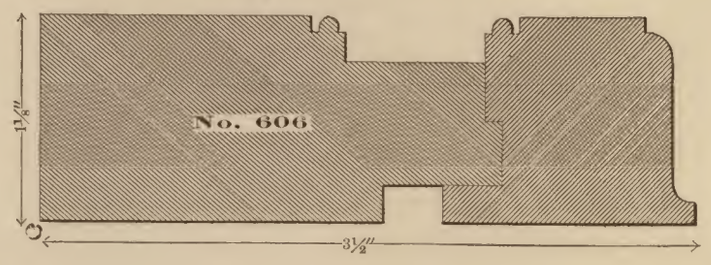












Full-Size Sections of Guide-ways for

Willer's Favorite (spring-balanced) Sliding Venetian Blinds.

These Guide-ways are made in two parts, as shown. The rear part is first fastened to the jamb by suitable round-headed screws; the Blind is then properly fitted and made to work satisfactorily, after which the front part of the Guide-way is screwed in place to finish the job. The cord circulates behind the Guide-way in the small groove shown in cuts. We furnish the Guide-ways with the necessary pulleys set therein at their proper places. The peculiar construction of above Guide-ways enables one to at any time get at the Blind for the purpose of repairs, etc., by simply removing the front part of same.

Willer's Favorite (spring-balanced) Sliding Venetian Blinds.

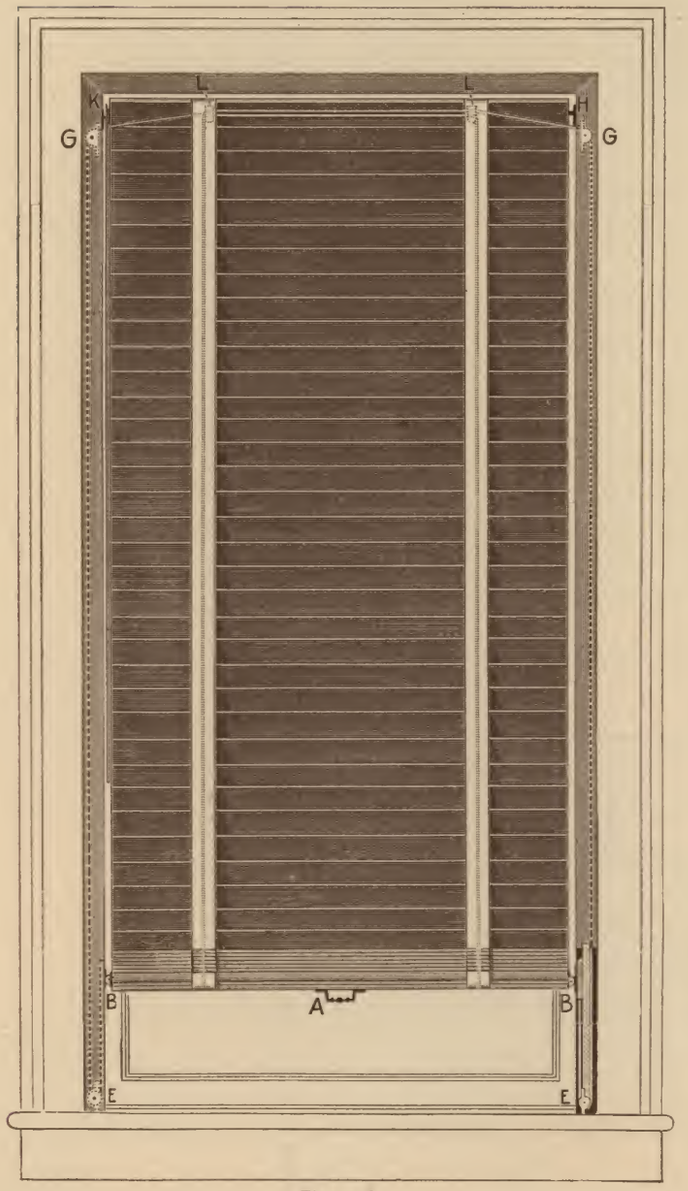


Figure 2.

The cut to the left (Figure 2) shows a set of these Blinds as we furnish it complete, ready for use.

K represents the positions of Blind Hinge No. 5, Cord Wheel No. 7 and Hinge Support No. 1.

H represents the positions of Blind Hinge No. 6 and Hinge Support No. 1.

LL represent Cord Pulleys No. 19.

GG represent Guide-way Pulleys No. 21, placed at the upper end of window.

EE represent Guide-way Pulleys No. 21, placed at the lower end of window.

BB represent positions of Venetian Blind Spring No. 25, in the Lower or Lifting Bar of the Blind.

A represents the Lower or Lifting Bar Handle No. 24.

The cut to the right (Figure 4) shows the proper positions of **Hinge Supports (or Bearing Plates) No. 1** and **Guide-way Pulleys No. 21,** placed at the upper ends of the Guide-ways of the Blind. The positions of the Pulleys at the lower end are as close as they can be put to the top of the window-stool.

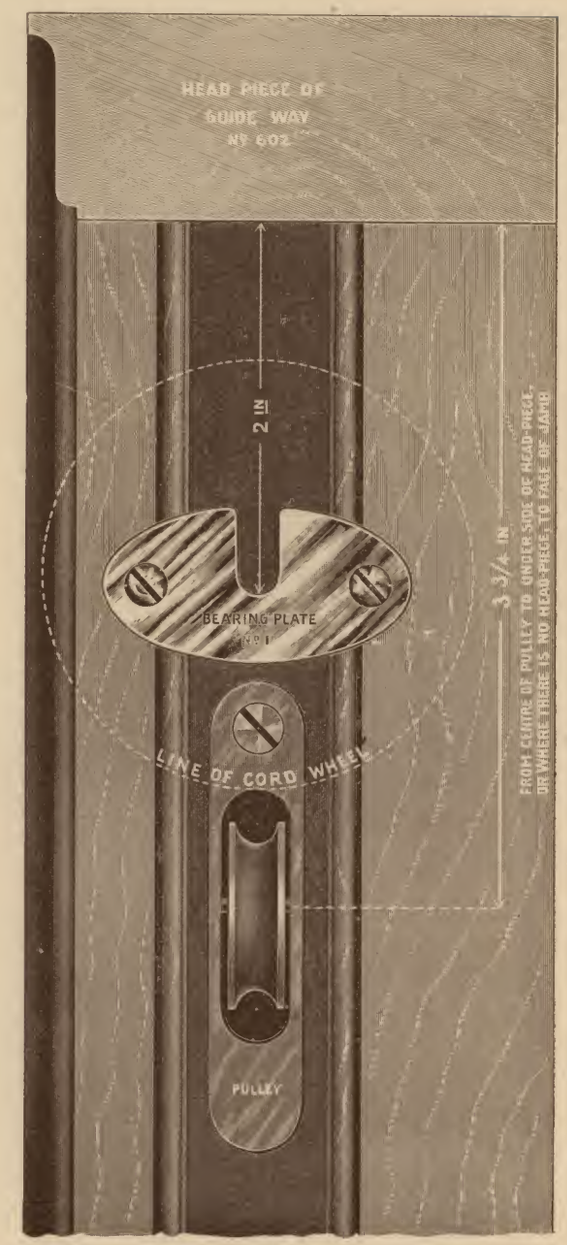
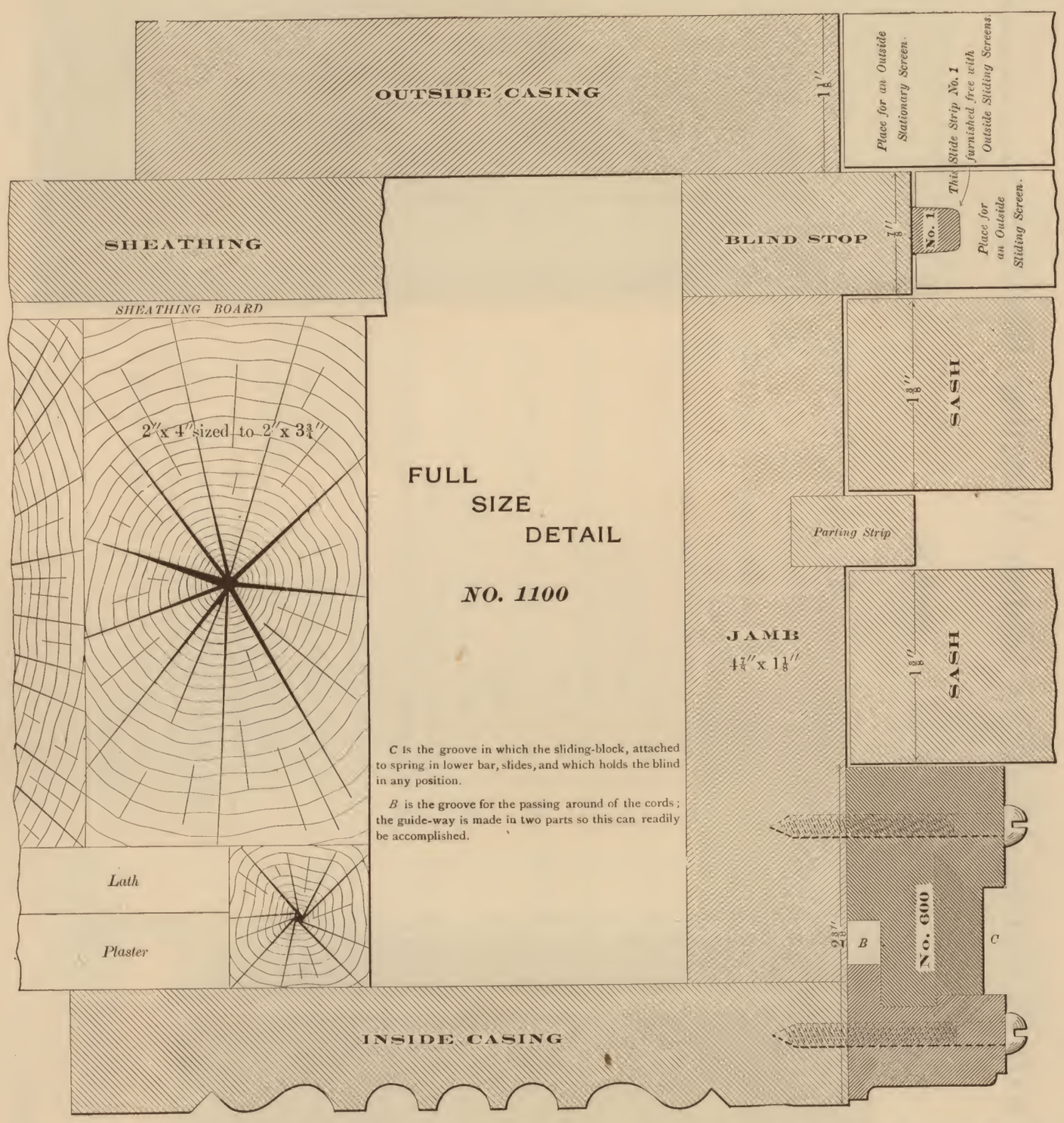


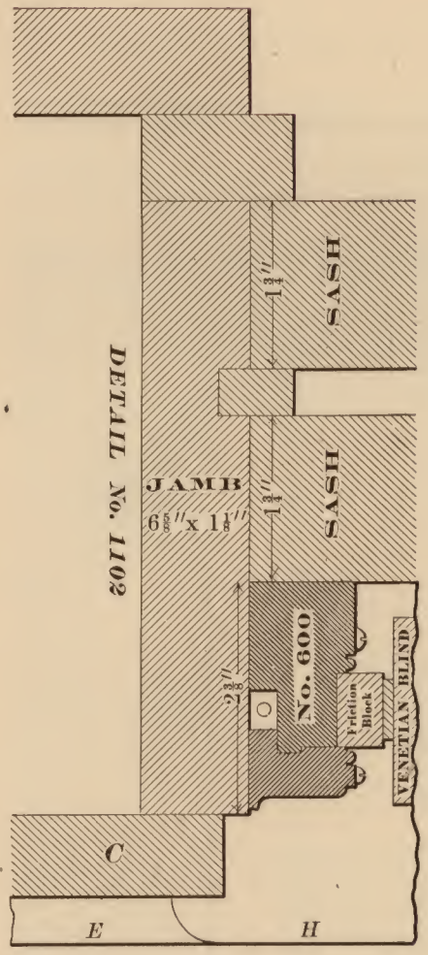
Figure 4.

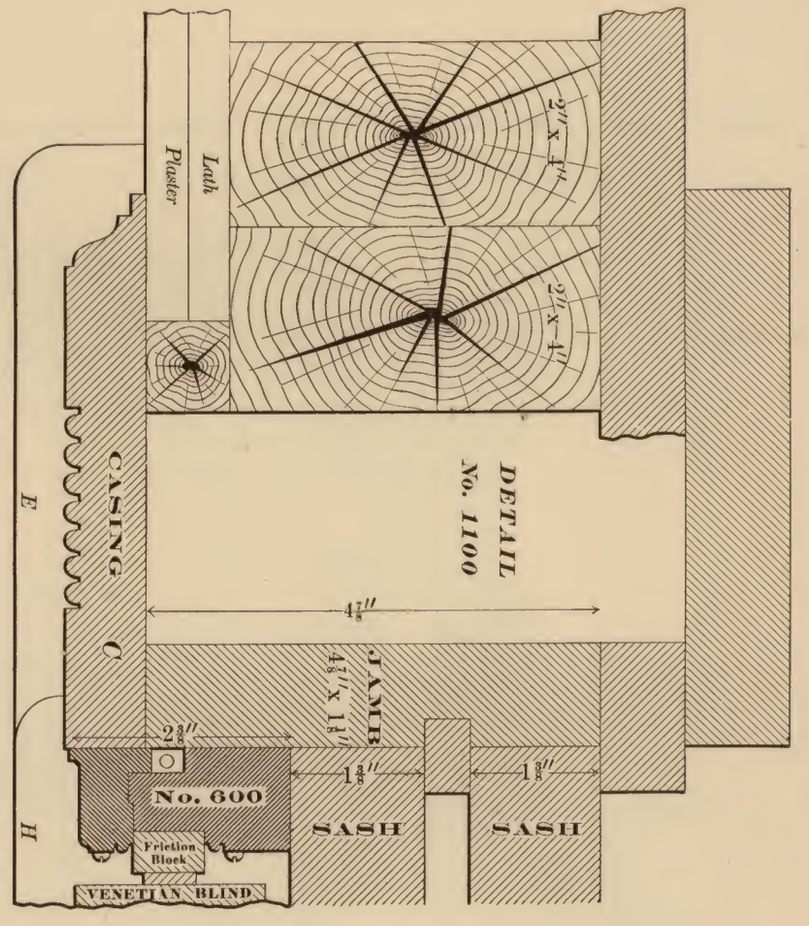


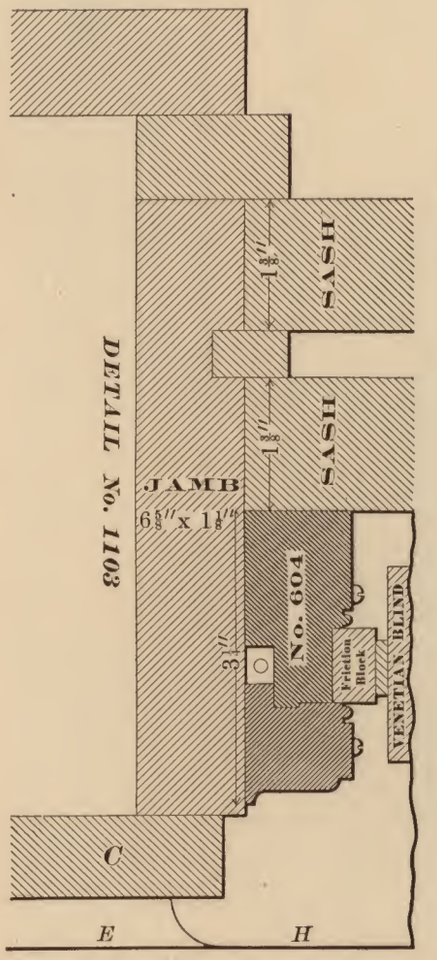
Full-Size Detail of Window-Frame arranged for Willer's Favorite (spring-balanced) Sliding Venetian Blinds.

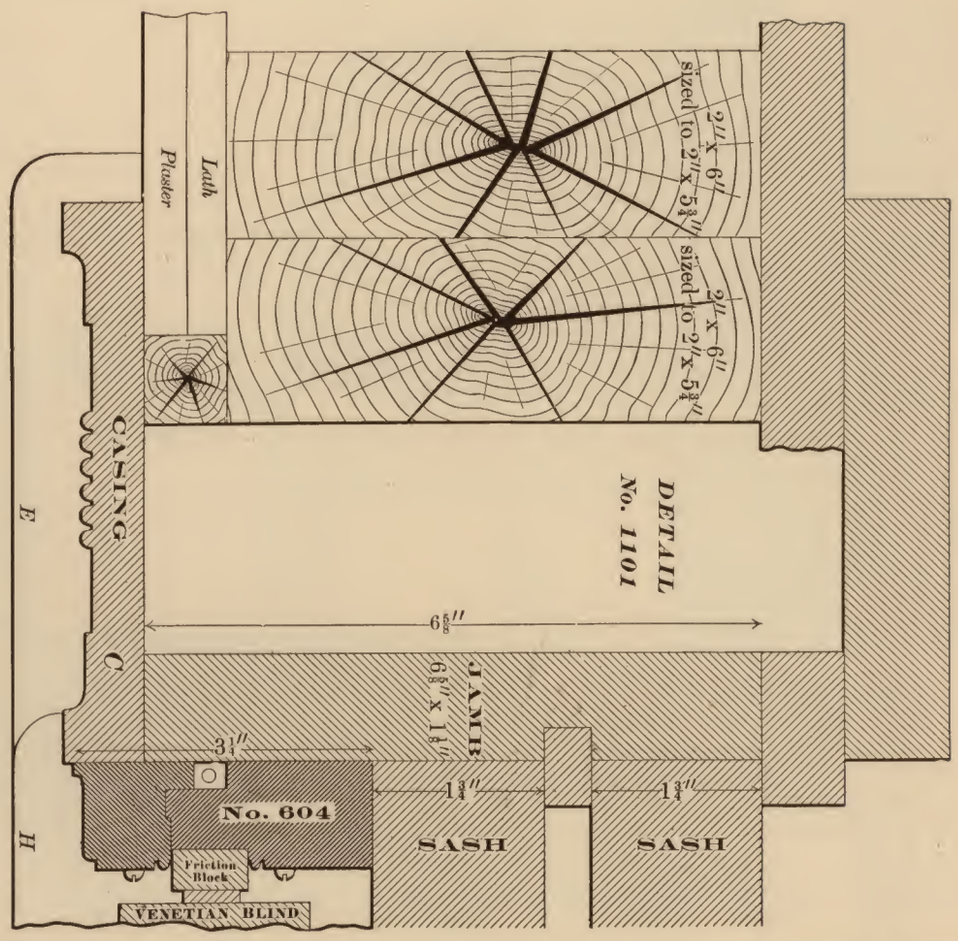
For Frame Buildings with 2 x 4 Studding.

Showing also proper construction of Frame for use of Outside Sliding, or Outside Stationary Screens.



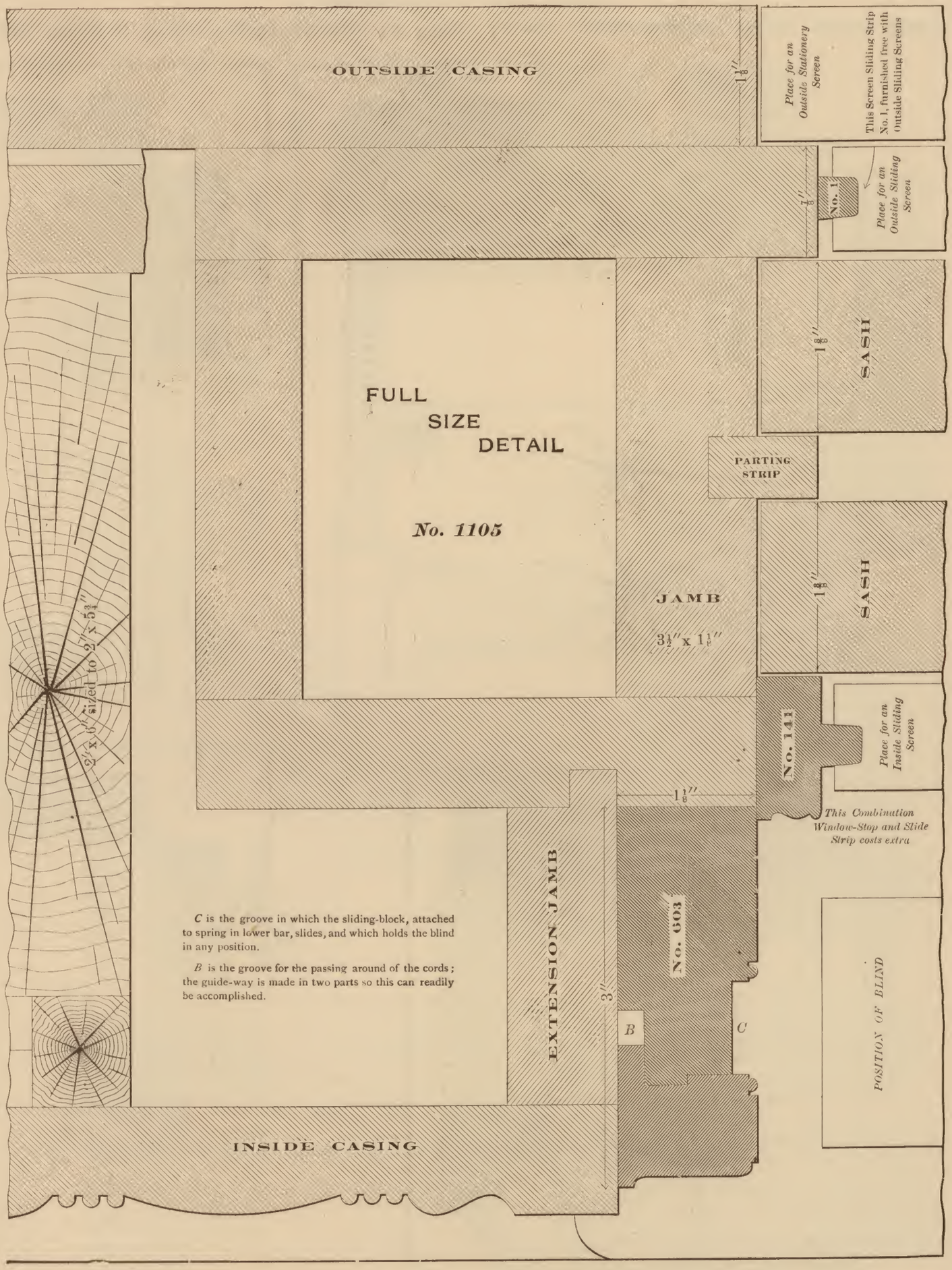






Half-Size Details of Window-Frames arranged for Willer's Favorite (spring-balanced) Sliding Venetian Blinds.

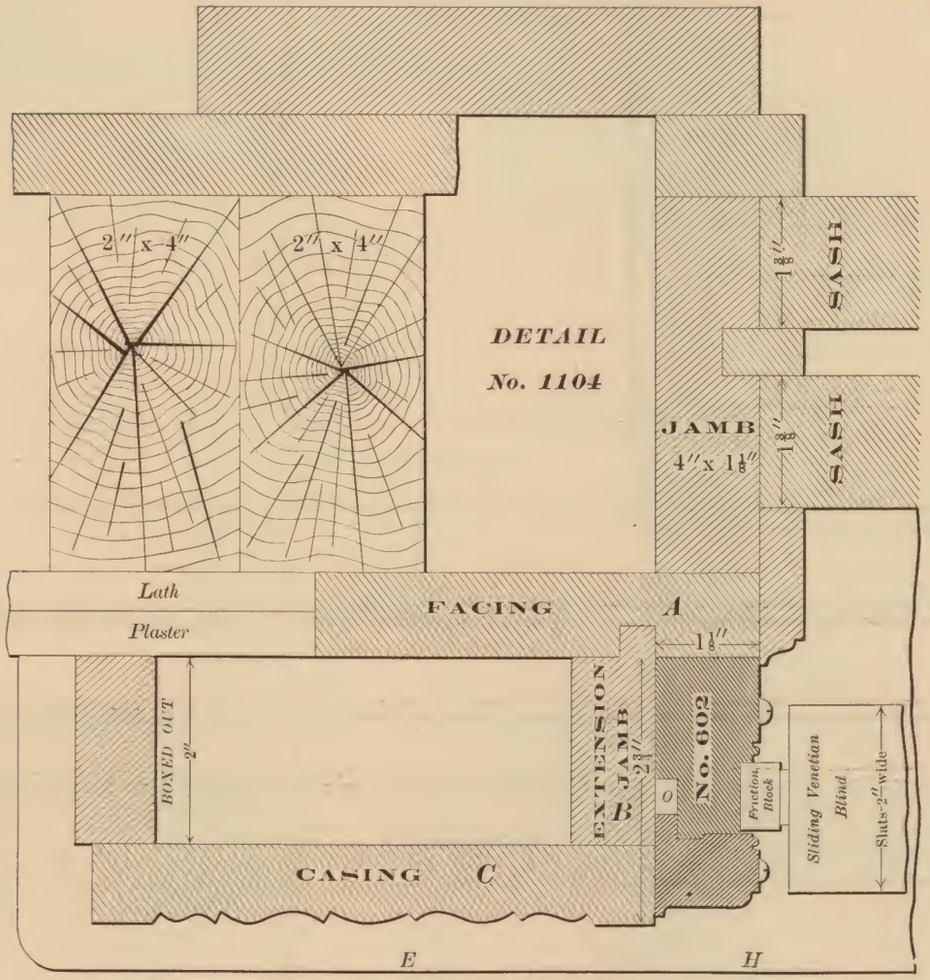
For Frame Buildings with 2 x 4 and 2 x 6 Studding.

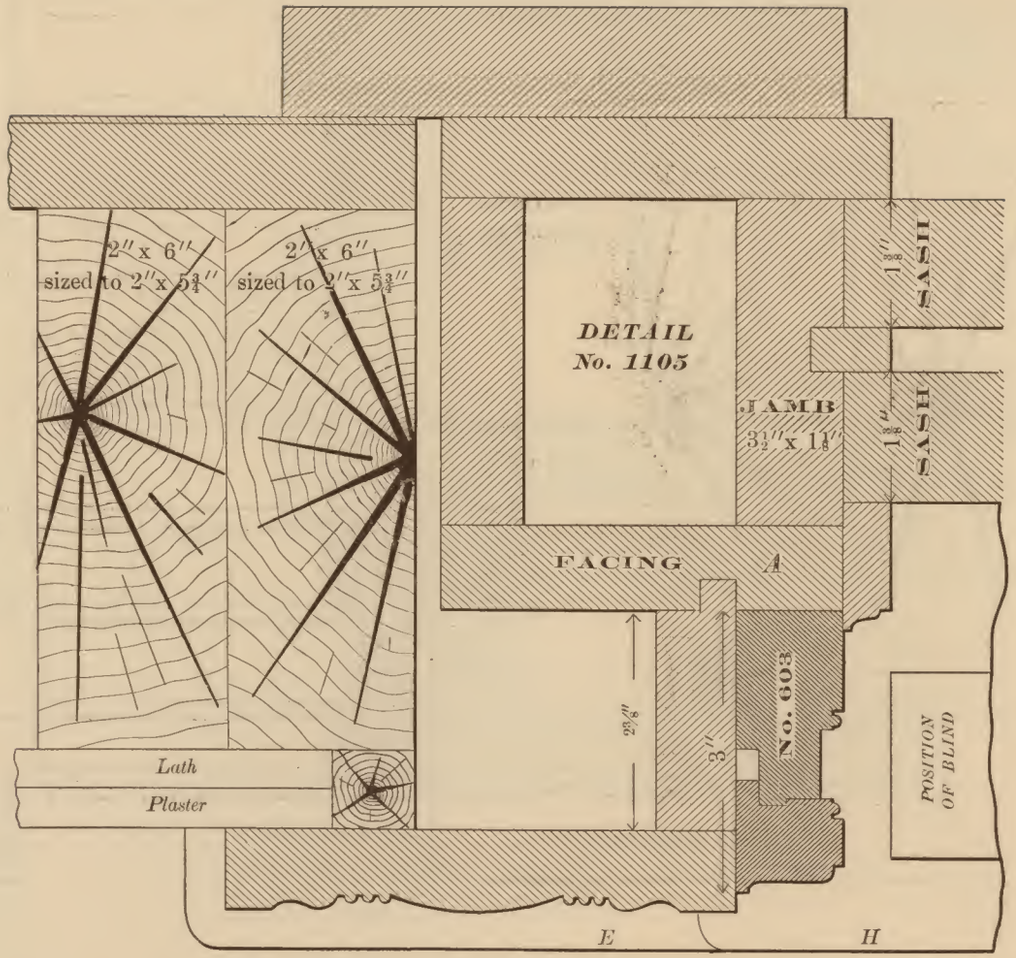


Full-Size Detail of Window-Frame arranged for Willer's Favorite (spring-balanced) Sliding Venetian Blinds.

For Frame Building with 2 x 6 Studding.

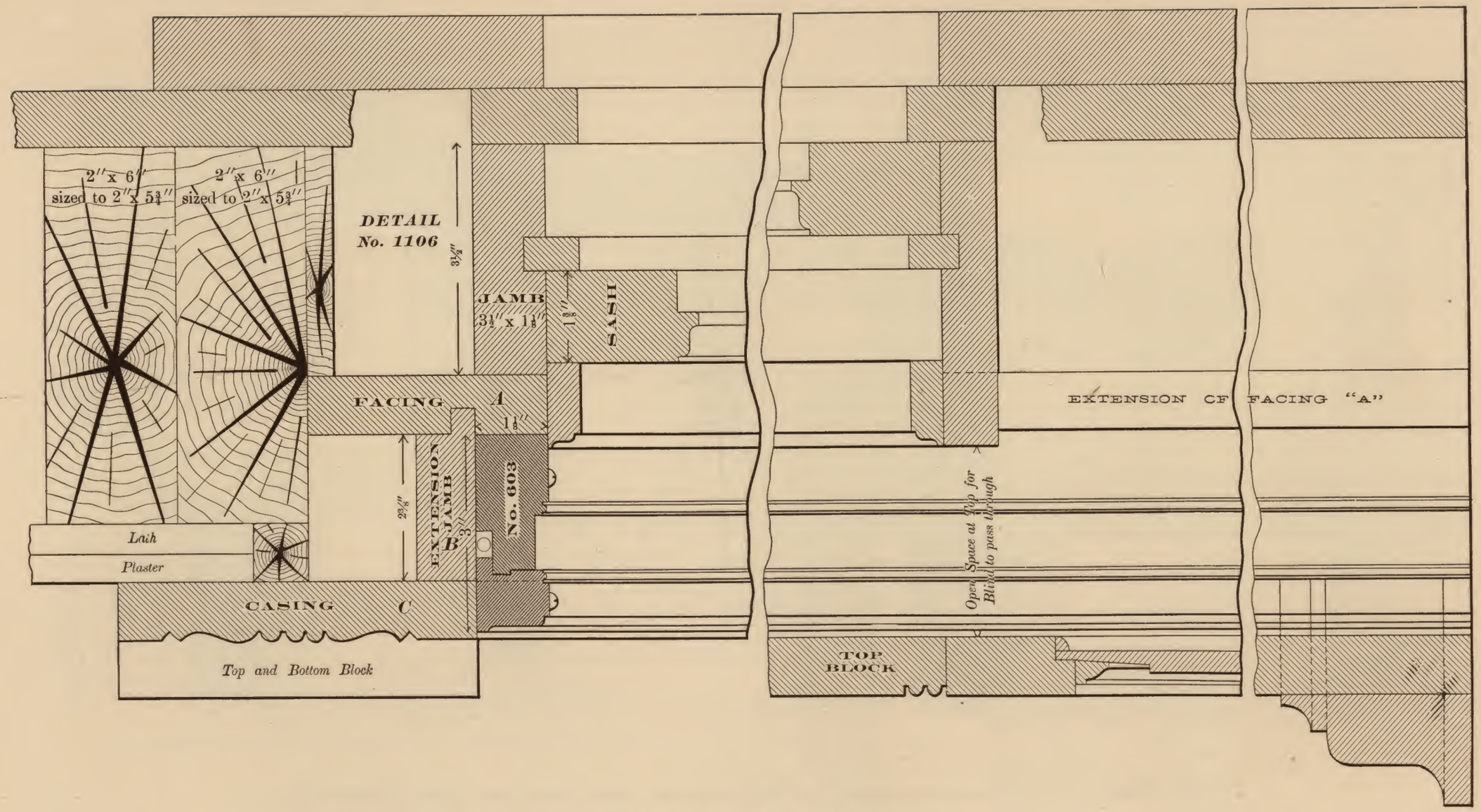
Showing also proper construction of Frame for use of either Outside or Inside Sliding Window Screens and Outside Stationary Screens.





Half-Size Details of Window-Frames arranged for Willer's Favorite (spring-balanced) Sliding Venetian Blinds.

For Frame Buildings with 2 x 4 and 2 x 6 Studding.

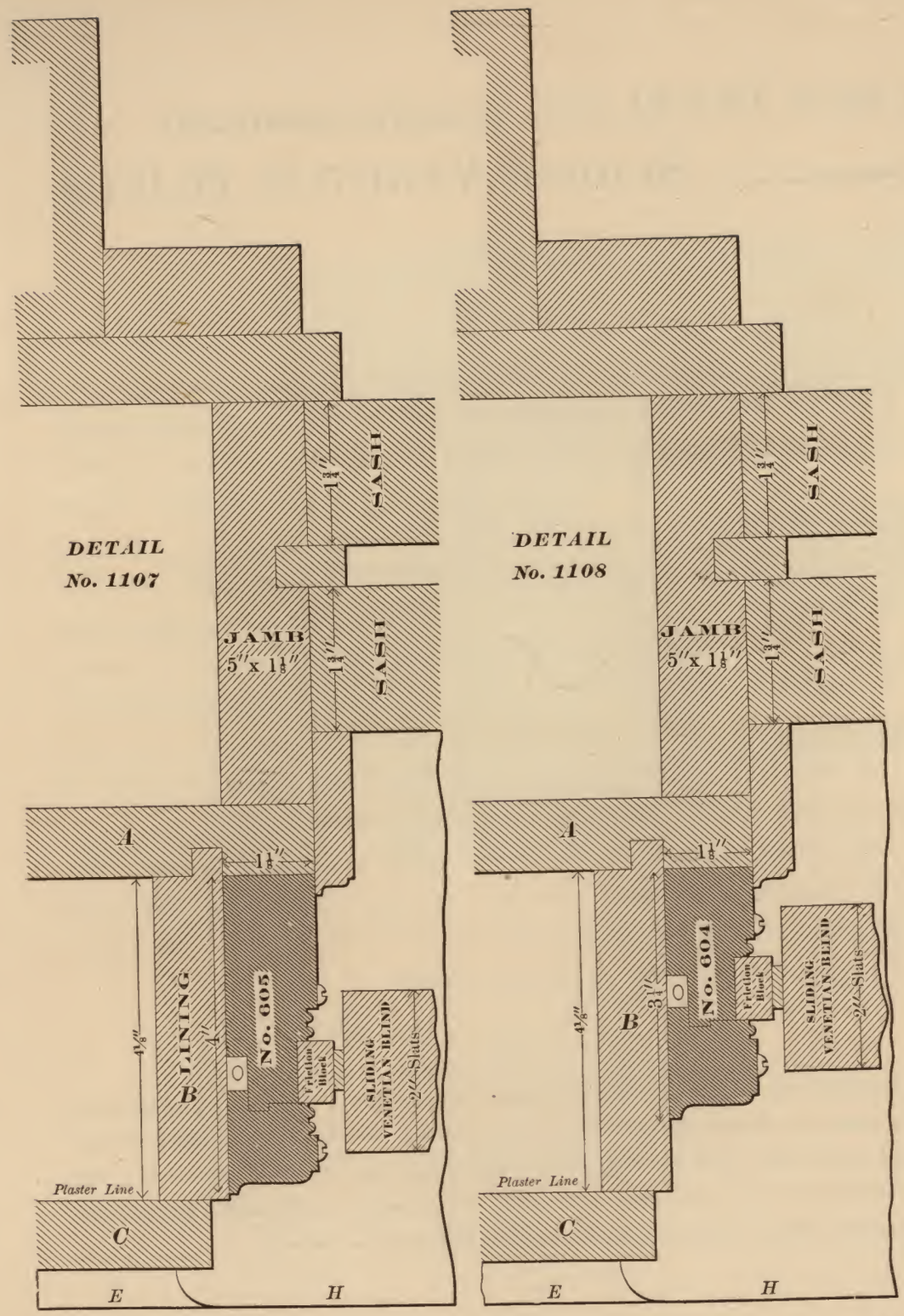


DETAIL No. 1106,

Showing a Window-Frame in a Frame Building with 2 x 6 Studding, arranged for

Willer's Favorite (spring-balanced) Sliding Venetian Blinds, running into a Top Pocket with Removable Panel Front.

For an enlarged Section and Elevation of this Top Pocket, see Plan B, page 231.



Half-Size Details of Window-Frames arranged for Willer's Favorite (spring-balanced) Sliding Venetian Blinds.

For a Brick Building with 13-inch walls.

⚜⚜⚜⚜⚜

Rule for measuring the Width of Willer's ——— Favorite (spring-balanced) Sliding Venetian Blinds.

Details of window-frames Nos. 1100, 1101, 1102 and 1103, show Guide-ways applied according to System of Application of Guide-ways No. 5 (see explanation of this system on page 96).

In all such cases, state exact width between pulley-jambs or jambs proper, including the Guide-ways, we making our own allowances in the width of the Blinds for the space occupied by said Guide-ways.

Details of window-frames Nos. 1104, 1105, 1106, 1107 and 1108, show Guide-ways applied according to System of Application of Guide-ways No. 1 (see explanation of this system on page 96) in which the Guide-ways set away from pulley-jamb or jamb proper and are placed on the Extension or false jamb.

In all such cases, state the exact width between the false or extension jambs, including the Guide-ways, we making our own allowances in the width of the Blinds for the space occupied by said Guide-ways.

For Height, state in all cases the height of the space occupied by the Blinds.



Appearance of Willer's Favorite (spring-balanced) and Willer's Peerless (weight-balanced) Sliding Venetian Blind, as applied to a window of more than usual size, 4 feet 6 inches wide and over.

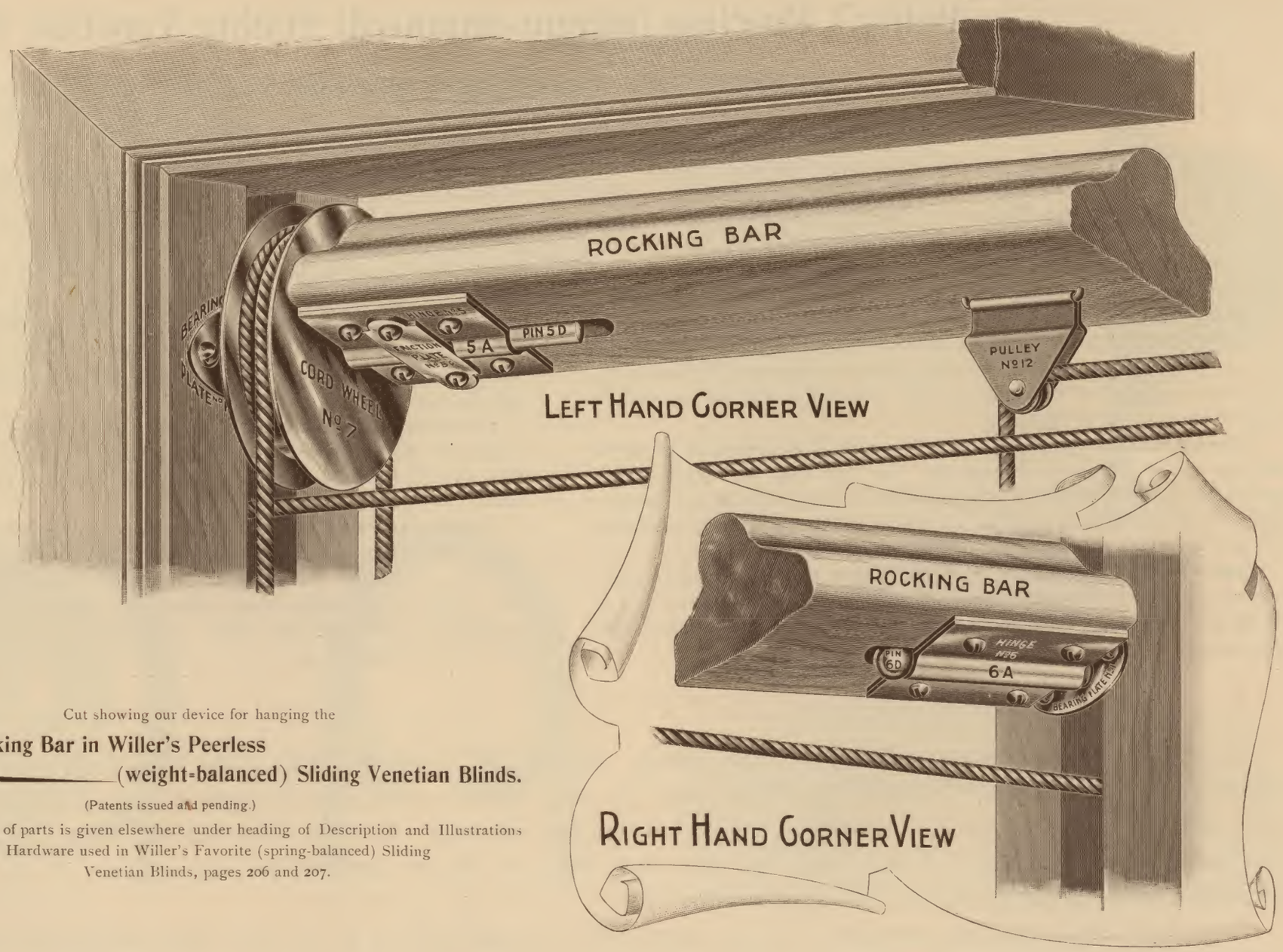
WILLER'S PEERLESS (weight-balanced) SLIDING VENETIAN BLINDS.

(Patents Issued and Pending.)

THIS new form of Venetian Blind, in its general appearance and in the method employed for opening and closing the Blind, is identically the same as Willer's Favorite (spring-balanced) Sliding Venetian Blind, described on preceding pages, except that in this case we make use of weights, in addition to the springs used in the other, to balance the Blind. The main object in using weights is to afford an opportunity of covering windows of more than usual size with this particular form of Blind, and have the Blind perform its functions quite as easily, or as much so as possible, in a large window as in a smaller one. It is therefore advisable in many cases, to use both the Favorite and the Peerless in the same building, using the Favorite for windows of usual size, and the Peerless for windows of more than usual size. Our suggestion would be to make the dividing line 4 feet and 6 inches; calling windows less than 4 feet 6 inches wide, of usual size, and windows of this width and over, of more than usual size, with a height of about 7 to 8 feet. In windows of more than usual height the dividing line should be proportionately narrower.

This form of Blind, being balanced by weights, requires a special construction of the window-frame to provide space for the placing of the weights; this special construction of the window-frame is fully shown and illustrated in Details of Window Frames, Nos. 1200, 1201, 1202 and 1203. The construction provides for a grooved false or Extension jamb, which we furnish.

Since the annexed engraving was made, we have discarded the use of the two handles and the cord-pulley shown on the left-hand side in the engraving. We have found these entirely useless and apt to interfere with the slats when pulling up or letting down the Blind. This cord, which is used only to turn the slats, now hangs down loosely on the side of the window. This remark pertains also to all other cuts of Venetian Blinds shown herein.



Cut showing our device for hanging the

Top or Rocking Bar in Willer's Peerless (weight-balanced) Sliding Venetian Blinds.

(Patents issued and pending.)

Full description of parts is given elsewhere under heading of Description and Illustrations of Hardware used in Willer's Favorite (spring-balanced) Sliding Venetian Blinds, pages 206 and 207.

DESCRIPTION OF HARDWARE USED IN

Willer's Peerless (weight-balanced) Sliding Venetian Blinds.

SEE ILLUSTRATIONS OF HARDWARE ON NEXT PAGE.

Venetian Blind Hinge, No. 5. — This is secured to the lower side and at the left-hand edge of the top or Rocking Bar. The parts shown, 5A and 5C, are wrought out of sheet bronze metal, Under Plate 5B is stamped out of sheet steel, and Pin 5D is of Cast Iron, Bronze-plated. Pin 5D lies between Under Plate 5B and Over Plate 5A, both of which are provided with channels for that purpose. Over Plate 5A is provided with an opening, over which Friction Plate 5C is placed. This Friction Plate bears against Pin 5D, and by proper use of the screws, can be regulated so as to give more or less friction while turning the bar, thus affording means for holding open the slats in the blind at any given angle. Pin 5D is made sufficiently long and can be moved forward and back to allow for any small irregularities that may occur in the measurements or size of the blind.

Venetian Blind Hinge, No. 6. — This is secured to the lower side and at the right-hand edge of the top or Rocking Bar. The Over Plate 6A is made of sheet bronze metal, the Under Plate 6B of sheet steel, and the Pin 6D of Cast Iron, Bronze-plated. Pin 6D lies between Over Plate 6A and Under Plate 6B and is provided with a ball at its one end to prevent the bar from moving sideways.

Cord Wheel, No. 7. — This is also made of sheet bronze metal and is permanently secured to the left-hand edge of the bar by screws. This cord wheel is used to turn the slats in the blind; the proper method of fastening the cord thereon is fully shown in cut.

Hinge Support, No. 1. — This is also made of sheet bronze metal. Two pieces are required for every window, one on the left-hand and one on the right-hand side of the window. They are secured to the face of the grooved Guide-ways near the top of the window, and the Pins in both Blind Hinges, Nos. 5 and 6, are made to engage in the slot shown in cut. The proper position of each support on the face of the grooved Jamb Guide-way, is shown by cut Fig. 4 on page 224.

Face Plate, No. 3. — This is also made of sheet bronze metal and is secured to both ends of the lower or Lifting Bar of the Blind, one piece on each end. Its purpose is to keep in place Venetian Blind Spring No. 25, described and illustrated on pages 222 and 223.

Lower or Lifting Bar Handle, No. 24. — This is made of cast bronze metal and is secured to the lower or Lifting Bar of the Blind for the purpose of pulling down the Blind when it is up. One or two are required for each set of Blinds according to the width of window.

Guide-way Pulley, No. 22. — This is the Norris Patent Pulley. Two of these are required for each set of Blinds, two on each side of the window, top and bottom, for the cords to pass over. This particular 1½ inch pulley is furnished with Willer's Peerless (weight-balanced) Sliding Venetian Blinds, and is placed in the grooves of the Jamb Guide-ways furnished with these Blinds. We furnish the Jamb Guide-ways with the pulleys secured therein by us.

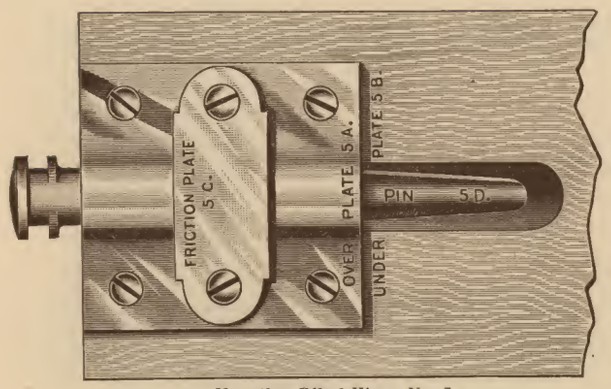
The Standard Finish for Pulley No. 22 is Iron, Berlin Bronze. We can also furnish this pulley in the following Special Finishes, where so specially ordered, at extra price: No. 22 A—Iron, Bronze-plated face and wheel; No. 22 B—Iron, Brass-plated face and wheel; No. 22 C—Iron, Nickel-plated face and wheel; No. 22 D—Iron, Antique Copper-plated face and wheel; No. 22 E—Iron, Steel-blue finish; No. 22 F—All Bronze metal face and wheel; No. 22 G—All Brass metal face and wheel; No. 22 H—Bronze metal, Antique Copper finish; No. 22 J—Bronze metal, Nickel-plated finish; No. 22 K—Bronze metal, Oxidized Silver finish.

The Standard Finish for all other Hardware is Bronze, natural color; polished finish for all cast metal goods and dip finish for all goods made of sheet bronze. We also furnish these goods in Antique Copper and Nickel-plated finish upon special order at extra cost.

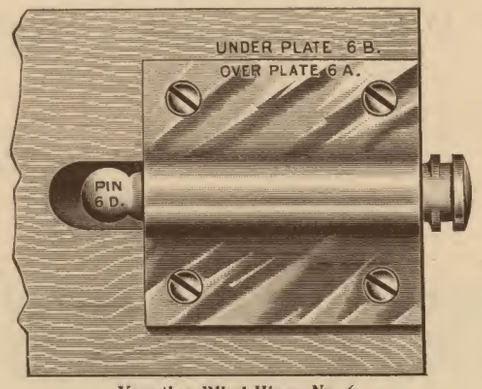
ILLUSTRATIONS OF HARDWARE USED IN

Willer's Peerless (weight=balanced) Sliding Venetian Blinds.

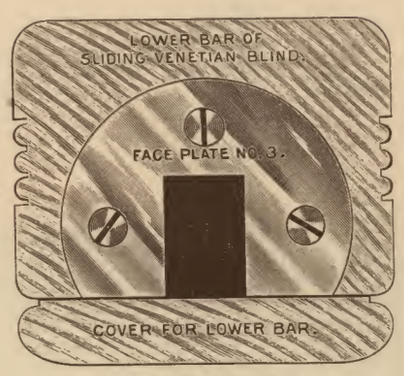
FOR DESCRIPTION SEE PRECEDING PAGE.



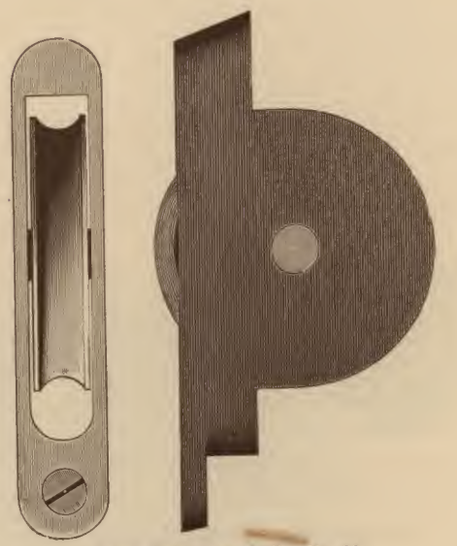
Venetian Blind Hinge No. 5.
For use on left-hand end of Upper or Rocking Bar, comprising the following parts:
Over Plate, 5A, Under Plate, 5B,
Friction Plate, 5C, Pin, 5D.
4 Screws, ⅝ in., No. 6, Round Head.
2 " ⅞ " " " "



Venetian Blind Hinge No. 6.
For use on right-hand end of Upper or Rocking Bar, comprising the following parts:
Over Plate, 6A, Under Plate, 6B,
Pin, 6D.
4 Screws, ⅝ in., No. 6, Round Head.



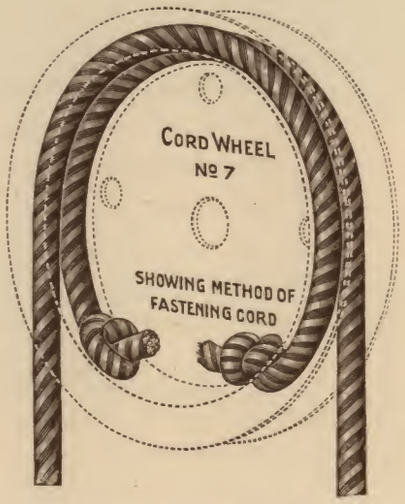
Face Plate No. 3.
Showing also full-size section of Lower or Lifting Bar.



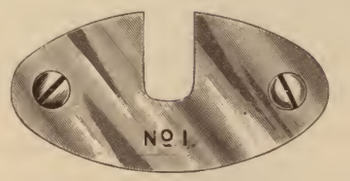
Jamb Guide-way Pulley No. 22.
1½ inch single.



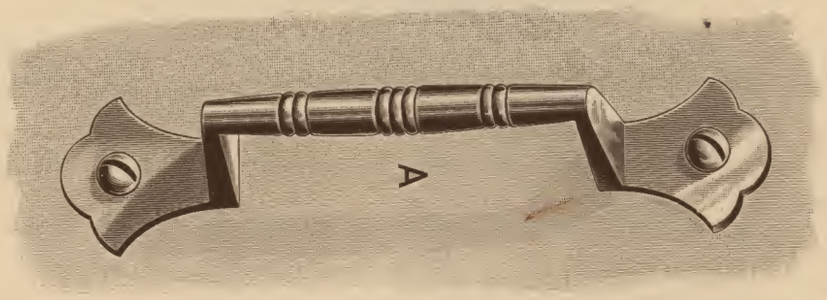
Cord Wheel No. 7.
For use on left-hand end of Upper or Rocking Bar.



Cut showing method of fastening the cord to
Cord Wheel No. 7.



Hinge Support No. 1.



Lower or Lifting Bar Handle No. 24.

Willer's Peerless (weight-balanced) Sliding Venetian Blinds.

DESCRIPTION OF LOWER OR LIFTING BAR USED IN ABOVE BLINDS.

SEE ILLUSTRATION ON NEXT PAGE.

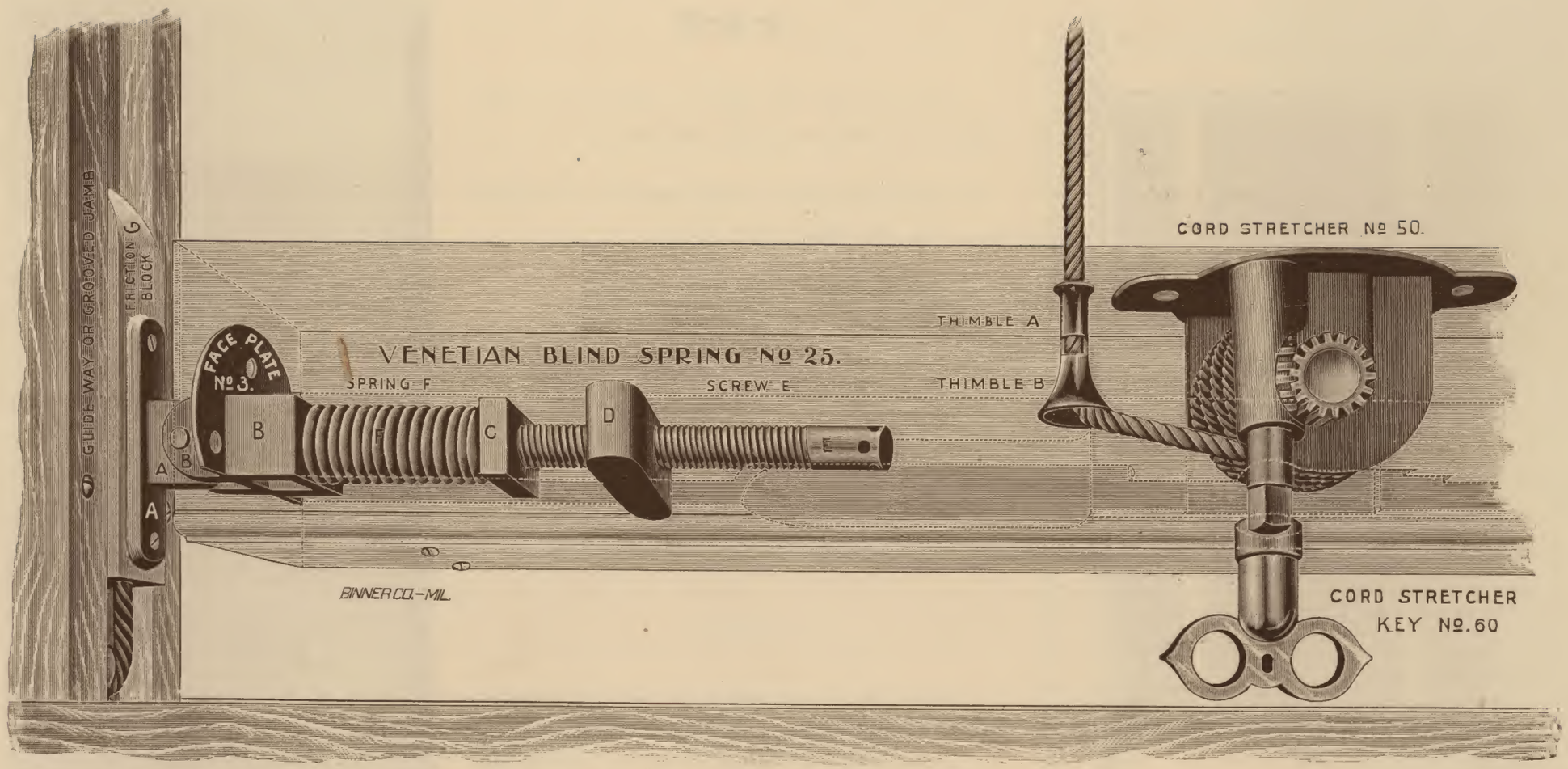
THE Lower or Lifting Bar itself is shown only transparently in cut, giving an opportunity of presenting proper engravings of the parts used in the inside of the Bar. A full-size section or end-view of this Bar is shown in connection with illustration of Face-Plate No. 3, on page 221. The lower covering of this Bar is secured by round-headed screws and can at any time be easily removed for the purpose of getting at the parts inside.

Venetian Blind Spring, No. 25. — Two of these complete springs are used with each set of Blinds, one at each end of Bar. All parts to the right of Face Plate No. 3, are placed within the Bar; part A and a portion of Part B only projecting on the outside. Part A is secured to the wooden Friction Block G, sliding in the groove of the Guide-way in the window. Screw E is provided with holes in its head, enabling one, by the use of a wire nail or other suitable instrument, to turn it and made to move forward or back, thereby increasing or diminishing the power of the Spring F. The more this spring is contracted or pressed together, the more power is thereby developed towards holding up the Blind. While this particular Blind is balanced by weights, we furnish this spring principally for the purpose of holding in place Friction Block G and giving more rigidity to the Blind in general, as well as making provision for counter-acting any deficiency that may exist in the heft or heaviness of the weights used.

Cord Stretcher, No. 50. — After the Blind has been in use for a little while, the cords will stretch more or less, sometimes a little more on one side than on the other, throwing the Blind "out of square." By the use of this Cord Stretcher, the cords can always be kept taut and the Blind in a perfect working condition; a few turns of the key will generally do it.

When Blinds are just put up, this should be attended to quite often at short intervals, and be kept up until the cords are "out of stretch." The key (Cord Stretcher Key, No. 60) is furnished separately and a few will be supplied with every order. One should be hung up at some convenient place in every room where these Blinds are in use.

Thimbles A and B are placed in the bar to prevent the chafing and scratching of the cord.



Full-Size Illustration of a Part of the Lower or Lifting Bar used in

Willer's Peerless (weight-balanced) Sliding Venetian Blinds.

Together with the Hardware, etc., attached thereto. For description of parts, see preceding page.

Willer's Peerless (weight-balanced) Sliding Venetian Blinds.

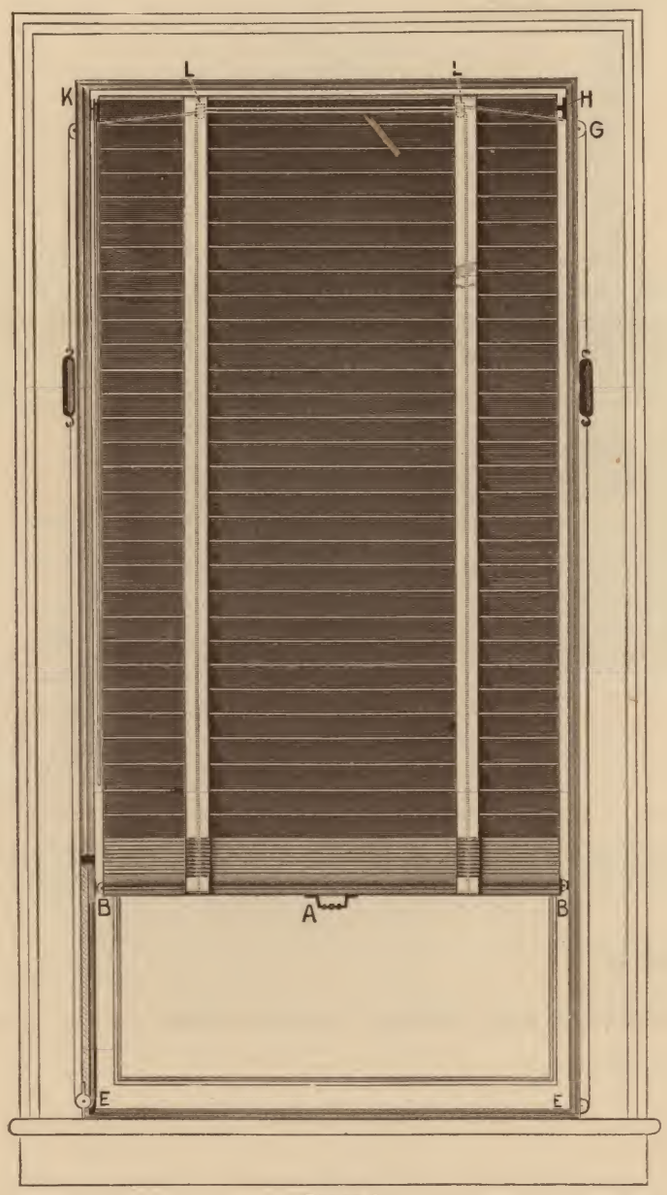


Figure 3.

The cut to the left (Figure 3) shows a set of these Blinds as we furnish it complete, ready for use.

K represents the positions of Blind Hinge No. 5, Cord Wheel No. 7 and Hinge Support No. 1.

H represents the positions of Blind Hinge No. 6 and Hinge Support No. 1.

LL represent Cord Pulleys No. 19.

GG represent Jamb Guide-way Pulleys No. 22, placed at the upper end of window.

EE represent Jamb Guide-way Pulleys No. 22, placed at the lower end of window.

BB represent positions of Venetian Blind Spring No. 25, in the Lower or Lifting Bar of the Blind.

A represents the Lower or Lifting Bar Handle No. 24.

The cut to the right (Figure 4) shows the proper positions of **Hinge Supports (or Bearing Plates) No. 1** and the **Jamb Guide-way Pulleys No. 22,** placed at the upper ends of the Jamb Guide-ways of the Blind. The positions of the Pulleys at the lower end are as close as they can be put to the top of the window-stool.

The cut is the same as appears on page **211** for Favorite (spring-balanced) Sliding Blinds and in this case one must imagine the part marked "Head-Piece of Guide-way" to be the Head-Jamb of the window.

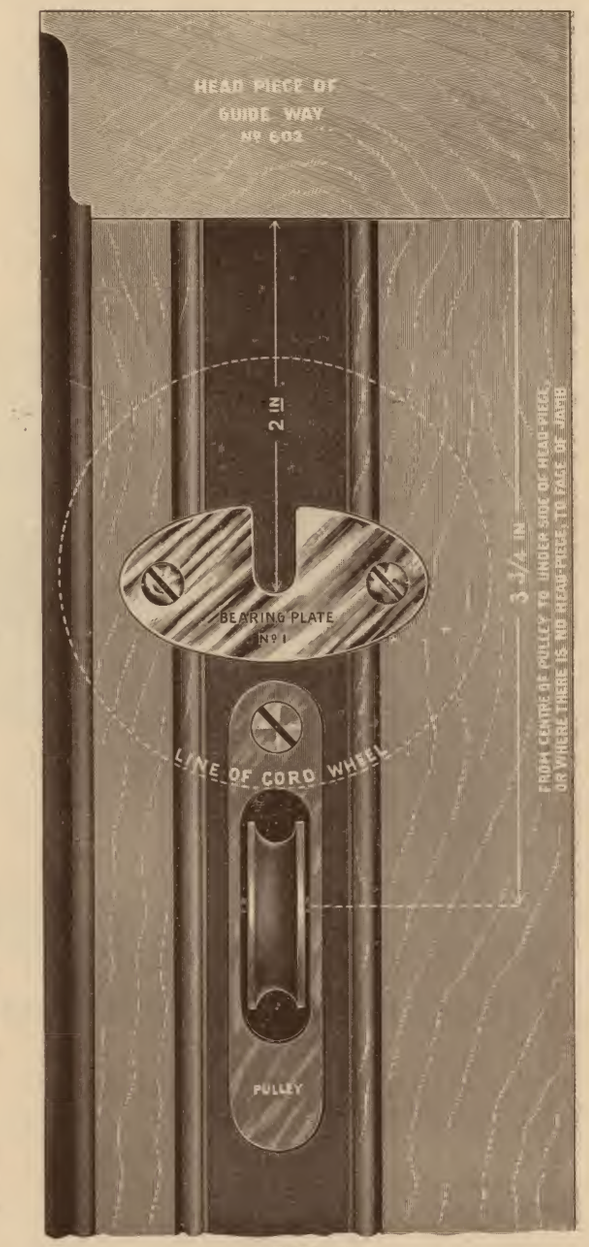
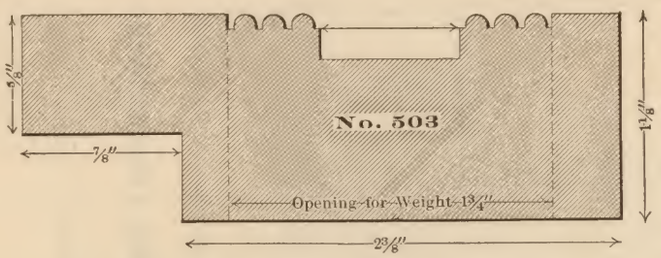
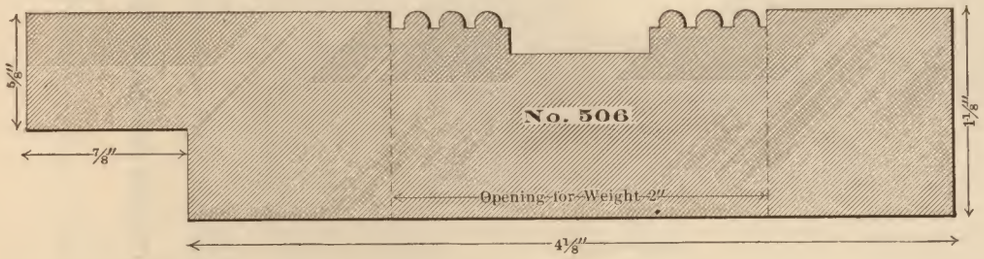
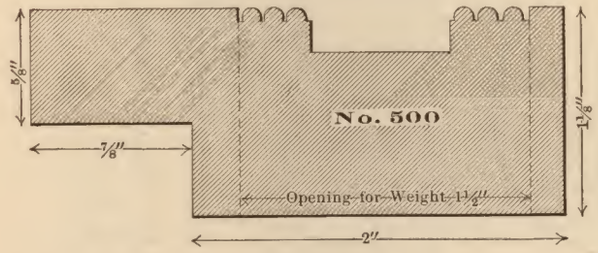
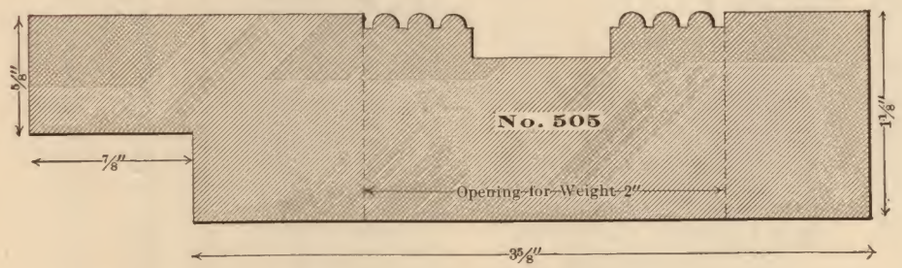


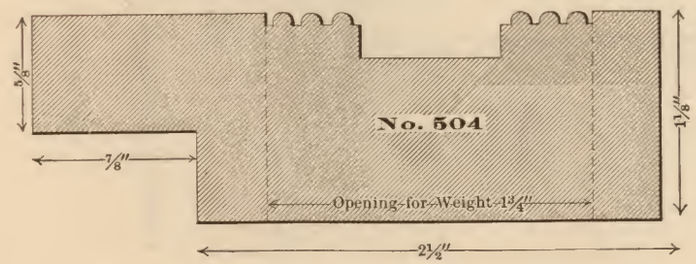
Figure 4.

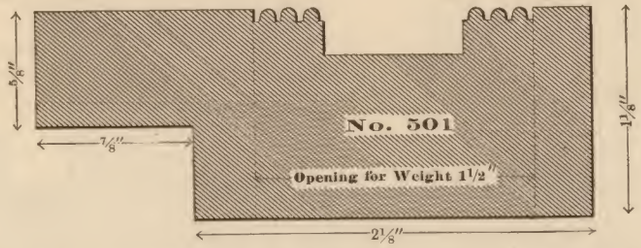


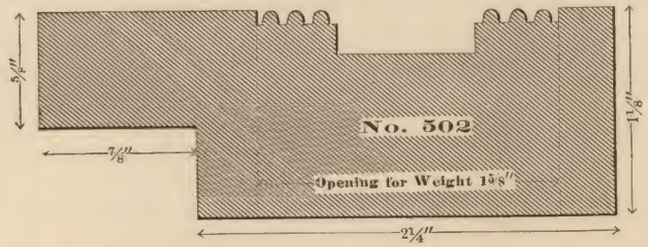


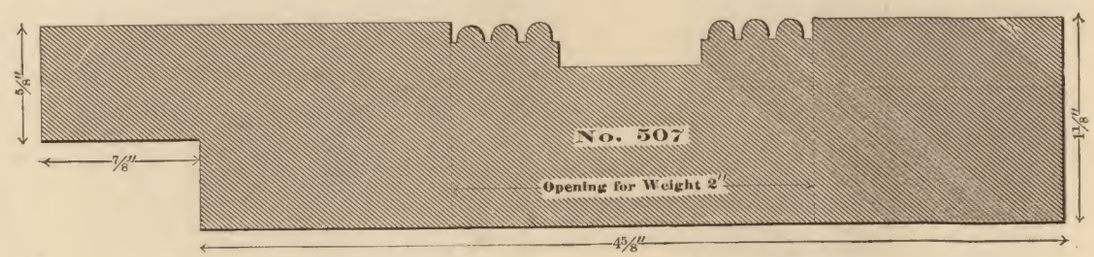










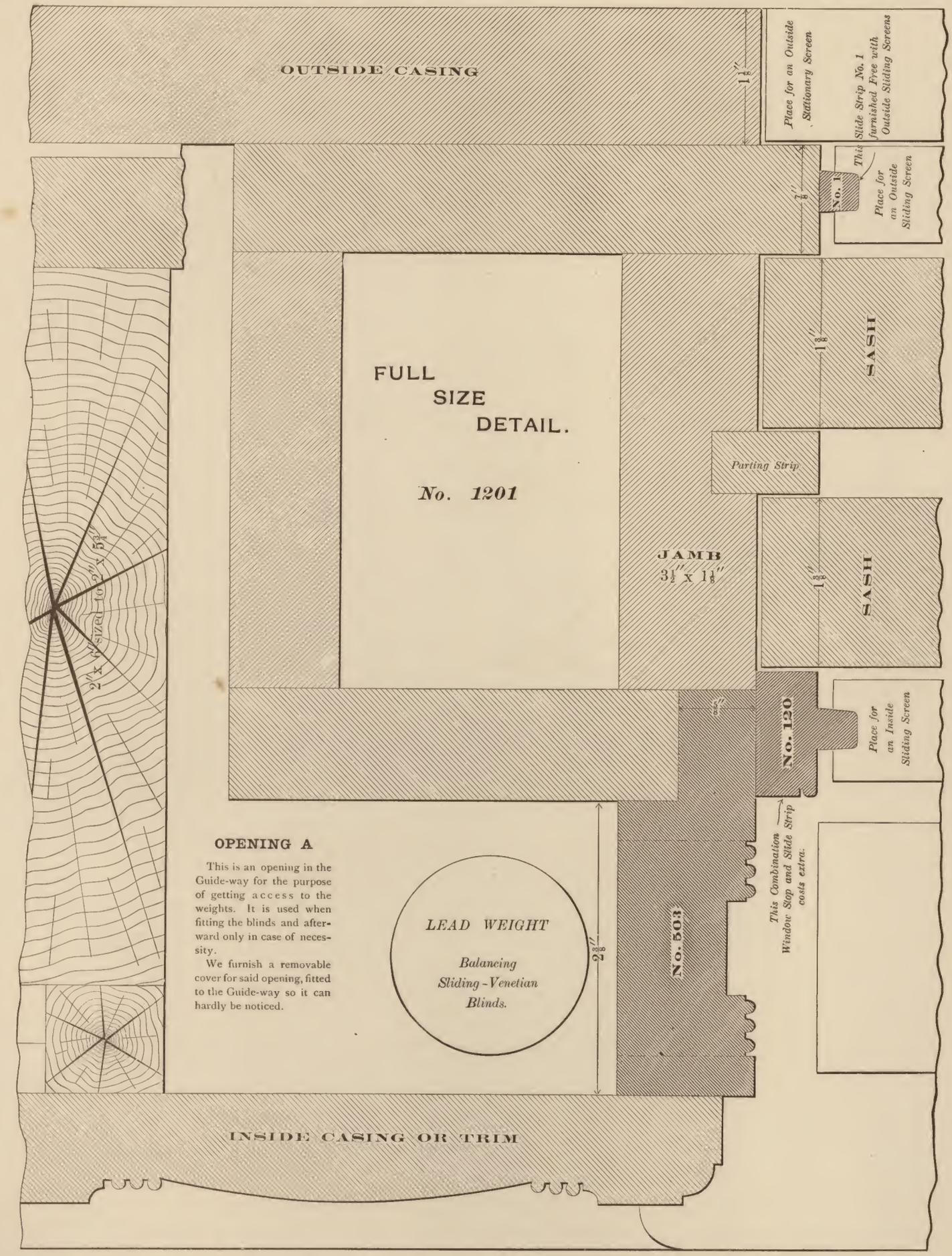


Full-Size Sections of Jamb Guide-ways for

Willer's Peerless (weight-balanced) Sliding Venetian Blinds.

These Guide-ways will be furnished by us with the pulleys set therein at their proper places. They will be furnished of the exact width required. Whenever they are required of a different width than here shown, an exact drawing of the same with proper measurements marked thereon, must accompany the order. When not distinctly otherwise ordered, the sliding-groove will run along the center of Guide-way as shown in cuts. We will in all cases furnish these Guide-ways unfinished, that is, not varnished nor oil-finished; these are to be finished by the finishing-contractor after they are applied to the window. The sliding-groove must in no case be varnished, but simply oiled with linseed oil thinned down with turpentine.

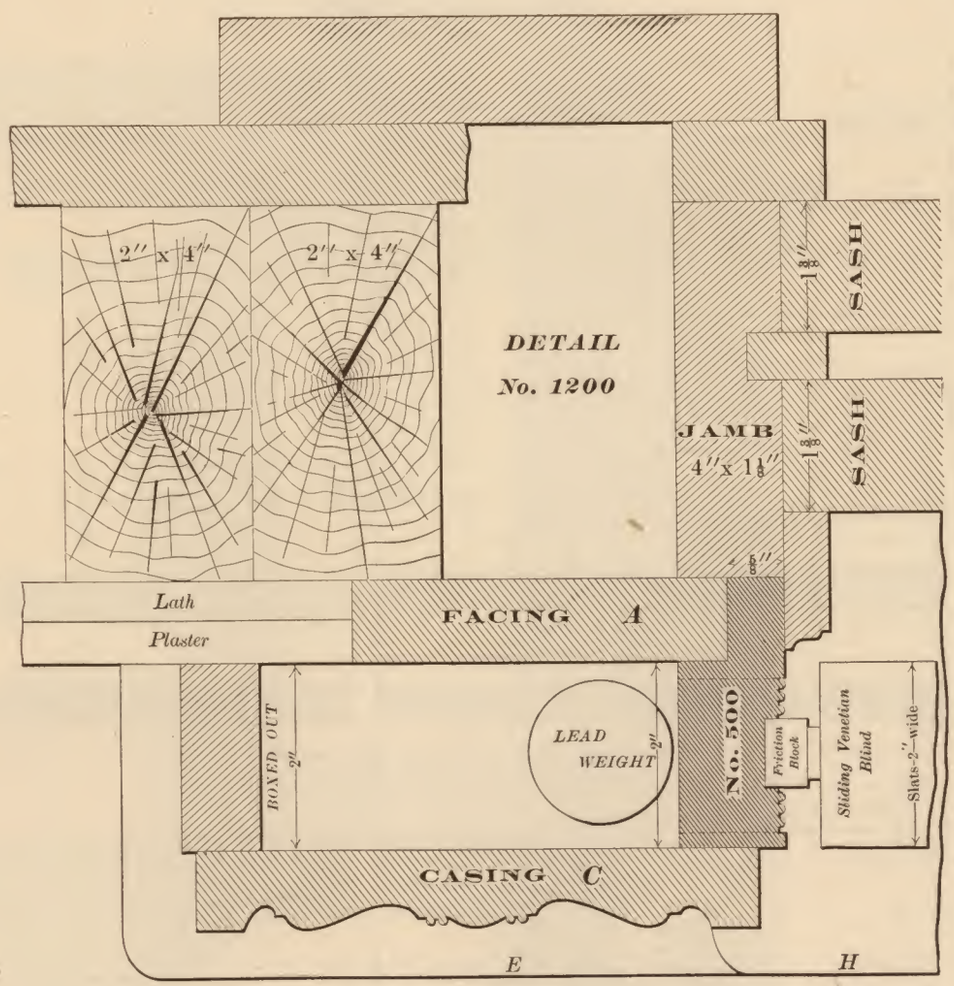
These Guide-ways can be ordered shipped ahead of the Blinds, to enable carpenter-contractor to "finish up" his windows.

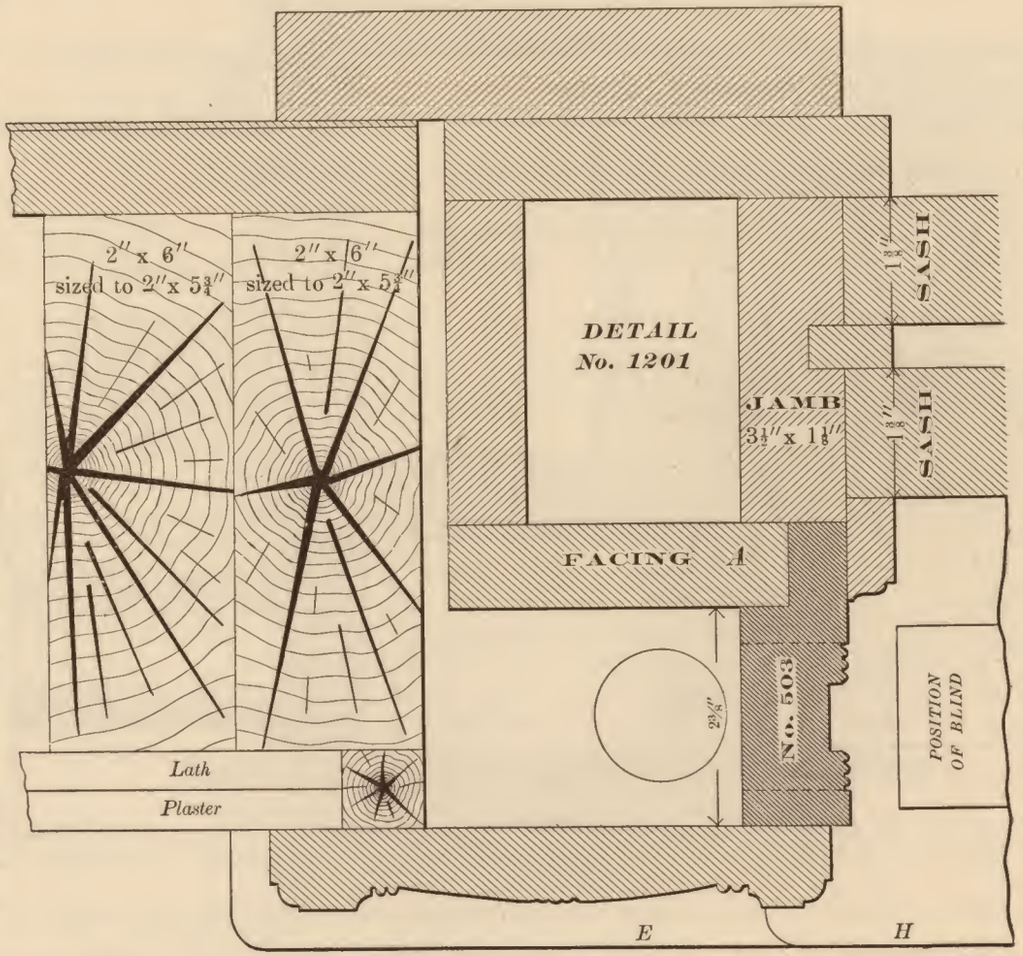


Full-Size Detail of Window-Frame arranged for Willer's Peerless (weight-balanced) Sliding Venetian Blinds.

For Frame Buildings with 2 x 6 Studding.

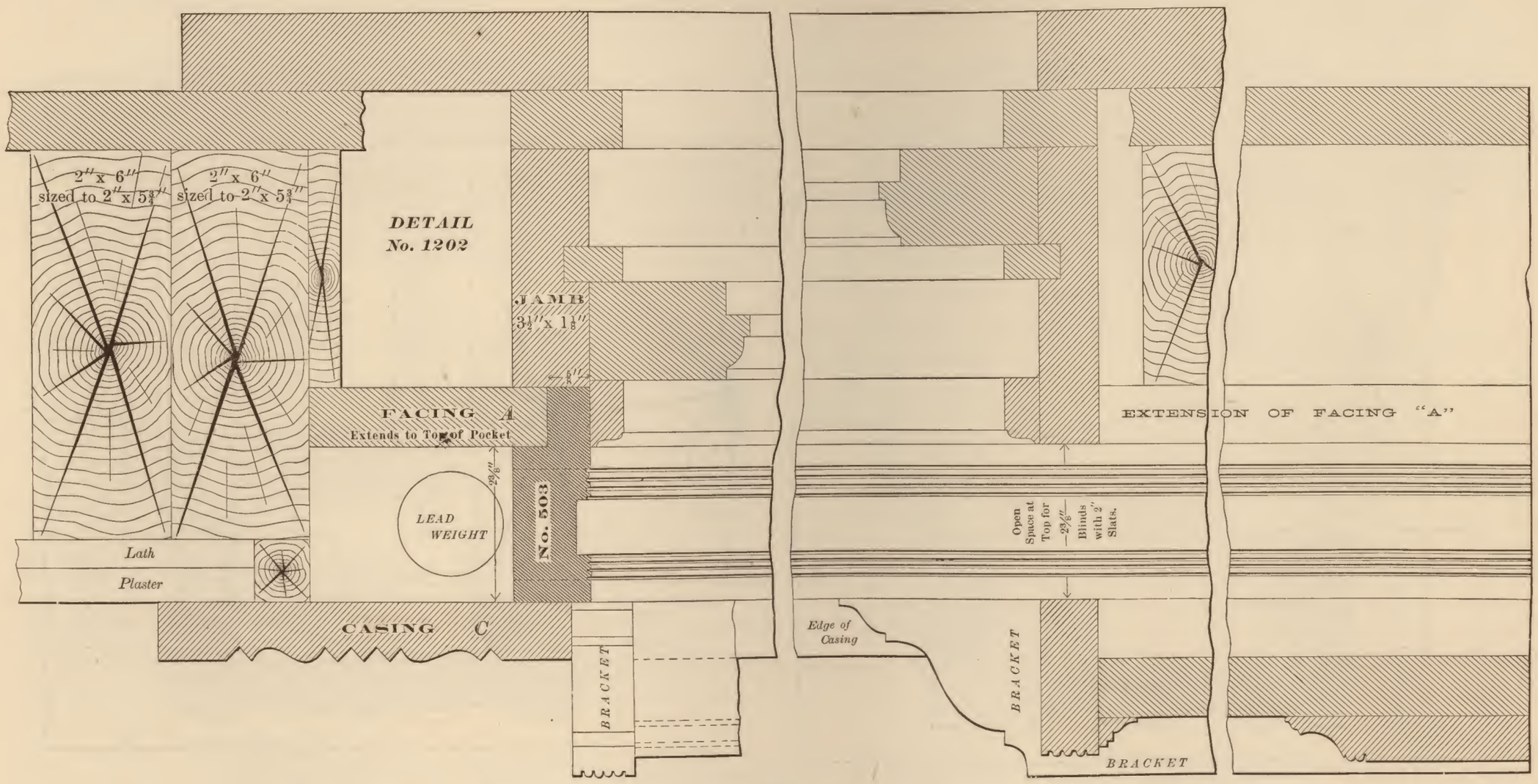
Showing also proper construction of Frame for use of either Outside or Inside Sliding Screens and Outside Stationary Screens.





Half-Size Details of Window-Frames arranged for Willer's Peerless (weight-balanced) Sliding Venetian Blinds.

For Frame Buildings with 2 x 4 and 2 x 6 Studding.

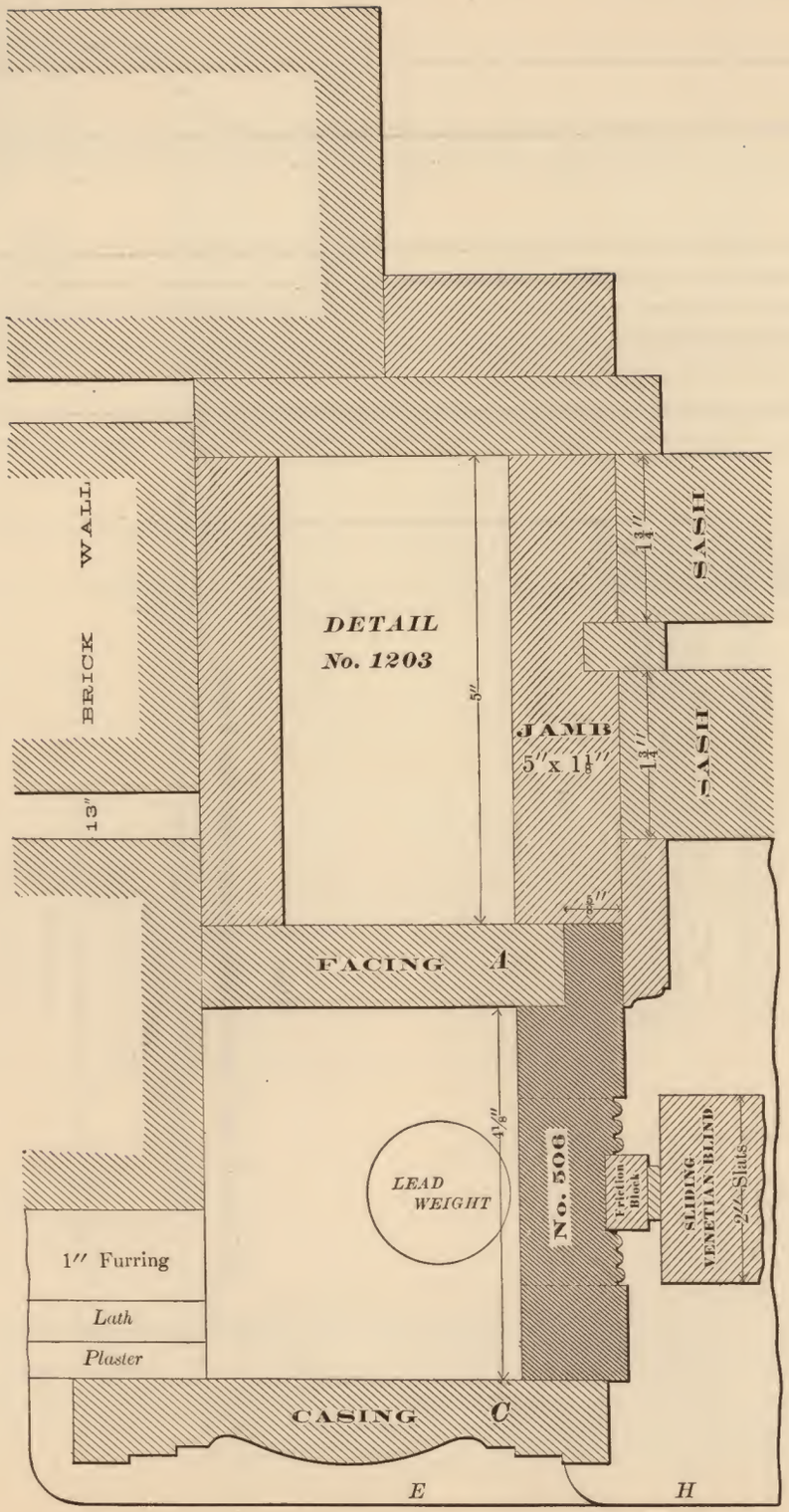


DETAIL No. 1202,

Showing a Window-Frame in a Frame Building with 2 x 6 Studding, arranged for

Willer's Peerless (weight-balanced) Sliding Venetian Blinds, running into a Top Pocket with Removable Panel Front.

For an enlarged Section and Elevation of this Top Pocket, see Plan A, page 230.



ACCOMPANYING ENGRAVING IS A

Half-Size Detail of a Window Frame arranged for_____

Willer's Peerless (weight-balanced) Sliding Venetian Blinds.

For a Brick Building with 13-inch walls.

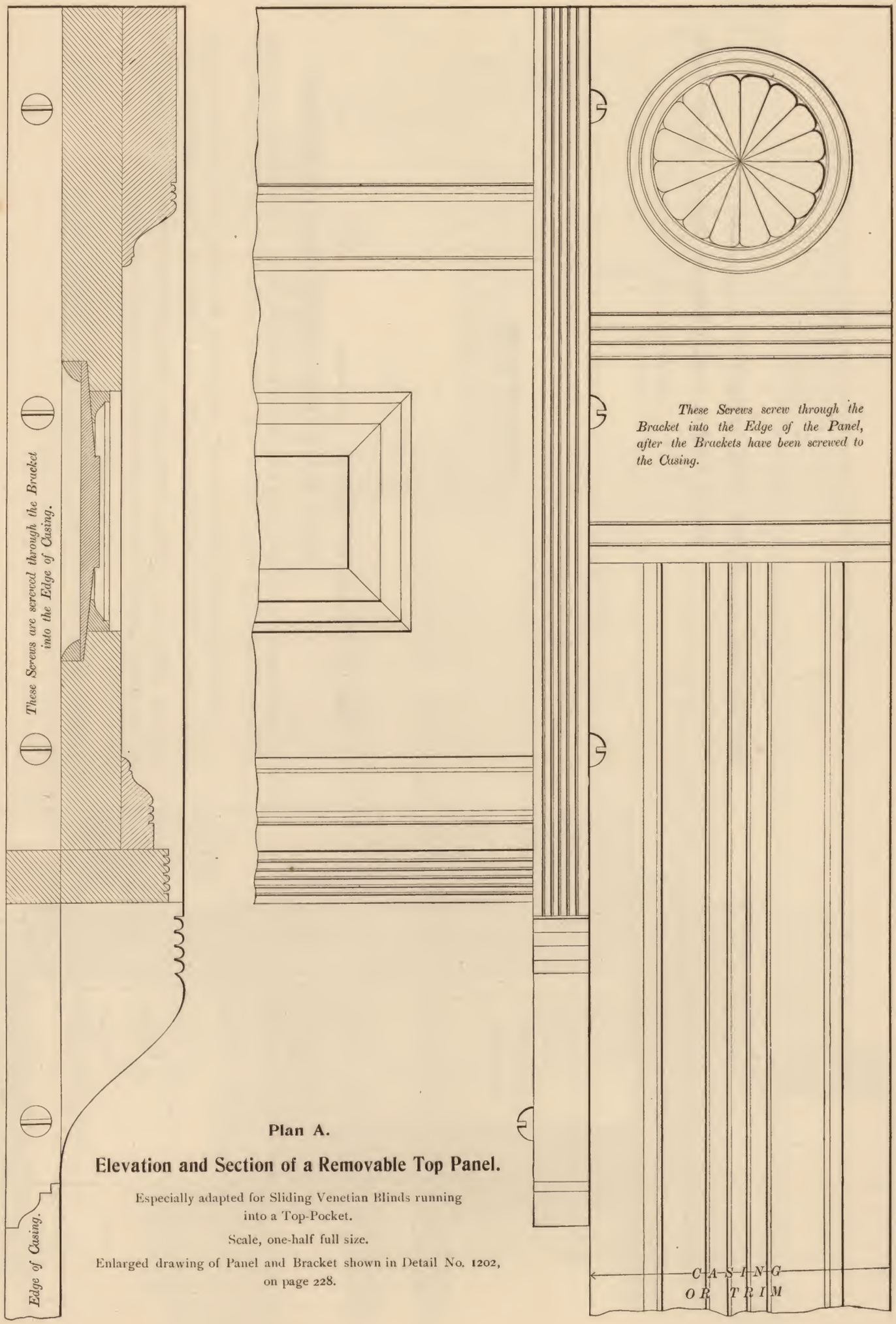
Rule for Measuring the Width of _____

Willer's Peerless (weight-balanced) Sliding Venetian Blinds.

Always state the exact width between the face surfaces of the Jamb Guide-ways, or in other words, give measurements between the pulley-jamb or jambs proper, as the face surfaces of the Guide-ways are on a line with the pulley-jambs.

It will be observed that above Rule differs entirely from that adopted by us for Peerless (spring-balanced) Blinds. While in the latter case, the width given for Blinds should always **include** the Guide-ways, the width given for Peerless (weight-balanced) Blinds should **not include** the Jamb Guide-ways.

For Height, state in all cases the height of the space occupied by the Blinds.



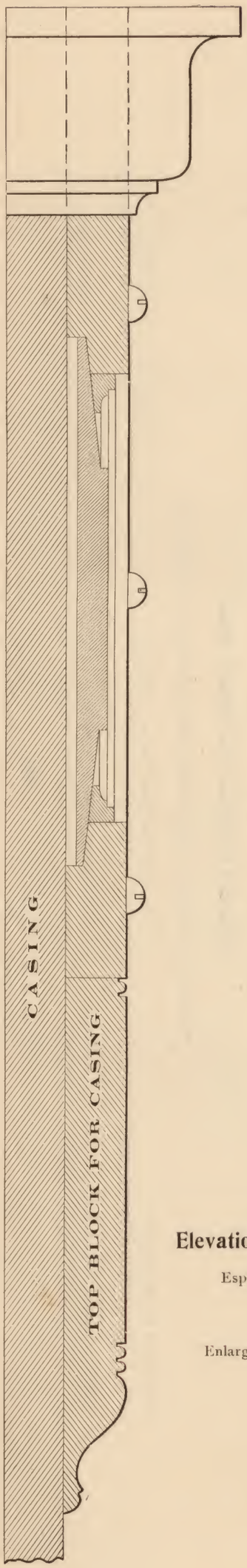
Plan A.

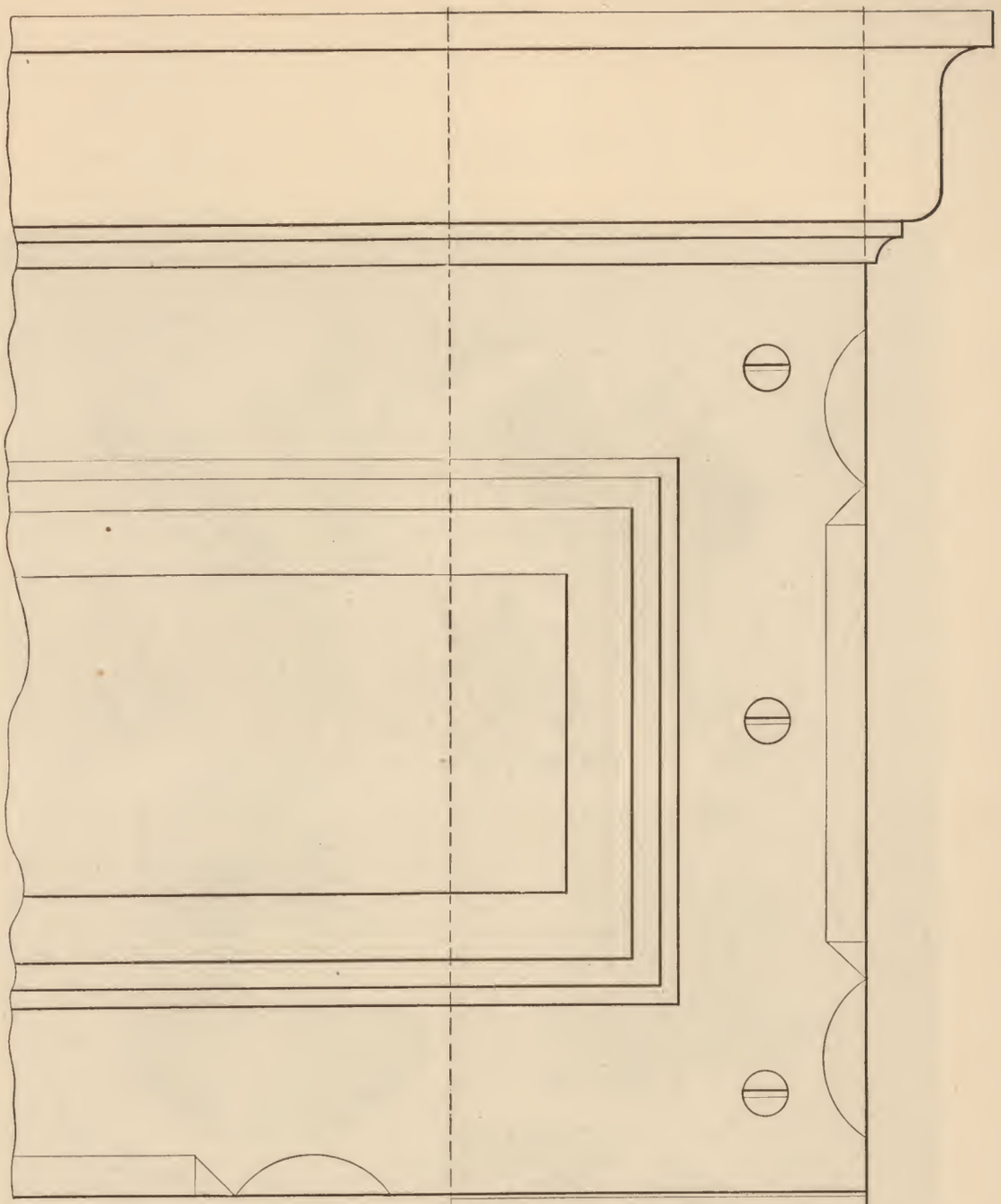
Elevation and Section of a Removable Top Panel.

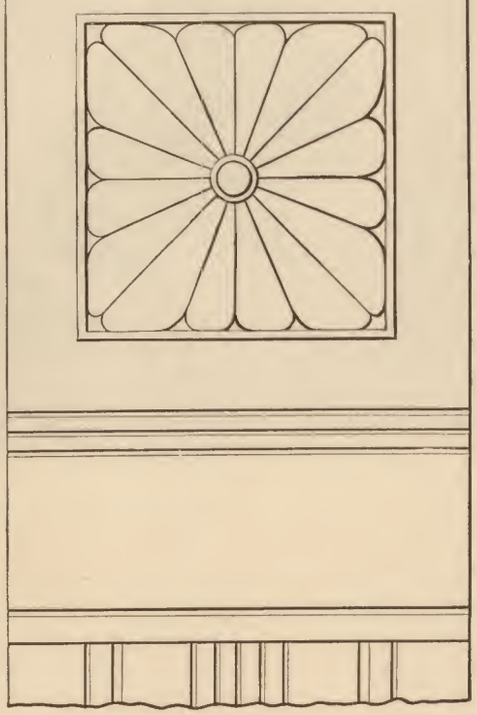
Especially adapted for Sliding Venetian Blinds running into a Top-Pocket.

Scale, one-half full size.

Enlarged drawing of Panel and Bracket shown in Detail No. 1202, on page 228.







Plan B.

Elevation and Section of a Removable Top Panel.

Especially adapted for Sliding Venetian Blinds running into a Top Pocket.

Scale one-half full size.

Enlarged drawing of Top Panel and Casing shown in Detail No. 1106, page 216.



A SERIES OF NEW ORLEANS, LOUISIANA, BUILDINGS,

Furnished throughout with Willer's Blinds.

Williams Bros., Architects, 1004 and 1006 Hennen Building, New Orleans, La.

Residence of Mr. B. Meyer,
Corner Milan and Baronne Streets.

Residence of Mr. Frank Fenner,
Corner Henry Clay Avenue and St. David Street.

Residence of Miss Blanche V. Blanchard,
St. Charles Avenue.

Residence of Mr. F. A. Savile,
Corner Coliseum and Second Streets.

Residence of Mr. M. Waldhorn,
Corner Magazine and Second Streets.

Residence of Mr. B. Rosenberg,
Corner Magazine and Third Streets.

..... DEPARTMENT OF .....

WINDOW SCREENS AND SCREEN DOORS.

Pages 233 to 270.

WILLER'S SPRING-BALANCED SLIDING SCREEN.



View of an Outside Sliding Window Screen in use.

FOR OUTSIDE OR INSIDE USE, COVERING ONE-HALF OF WINDOW.

CAN BE USED FOR EITHER LOWER OR UPPER HALF OF WINDOW.

Warranted equal if not superior to any in the market for Fine Residences and other Buildings.

THIS Screen consists of a painted or finished wooden frame, strongly mortised and tenoned together and covered with any kind of wire cloth according to grade selected. It is made to cover one-half of the window only and, by sliding it up and down on small slide-strips secured to the window-frame for that purpose, can be made to cover either the top or the bottom part of the window, allowing one to open either the top or the bottom sash for the admission of air.

The Screen may be moved to any part of the window and made to stay there, it being held in place by springs attached to one side of the Screen. These springs are adjustable to suit the weight of the Screen; each spring has a wooden block attached to it, which bears against the slide-strips, allowing the Screen to move up and down quite easily, and preventing the scratching of the slide-strip by the spring. For illustration and full description of this spring see page 238.

The Screen can be removed from the window in an instant, by simply pressing it a little to one side and lifting it off from the slide-strip, and can just as easily be put back again to the window. The slide-strips are furnished full length to cover the entire window, have holes bored in them equal distances apart and are supplied with brads to nail the same on with.

This Screen is made only to order, exactly to the size ordered and of any kind of wood and finish.



Cut showing

WILLER'S SPRING-BALANCED SLIDING SCREEN,

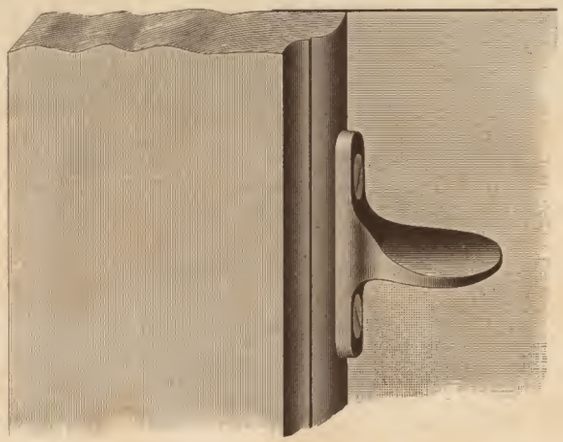
As we furnish it with Slide-Strips on which it slides.

SCREEN - LIFT No 6.

Accompanying cut is a full-size illustration of our Screen-Lift as we furnish it for all our Sliding Window Screens. It is screwed to the side-rails of the Screen and enables one to get a good hold of the Screen for the purpose of moving it up and down. We furnish it in two grades:

Iron, Black Japanned, included in price of Screens and invariably furnished where not otherwise called for.

Genuine Bronze, Natural and Antique Copper Finish, furnished only upon special order and for which we make an extra charge, which extra charge will be quoted upon application.



We also make a Drop Sliding Screen, similar to the above, but without springs, to cover the lower half of window only, for Tenement Houses, Flats and other buildings not requiring the very best kind of Screens. For further particulars see page 237.

SQUARE FOOT TABLE,

Showing the Number of Square Feet Contained in a Screen or Venetian Blind of Any Given Size.

Copyright, 1895, by Willer Manufacturing Co.

Can be Detached Here from Catalogue.

This table will also be furnished to our agents and others, when desired, printed on card board.

◎	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	2.11	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	3.10	3.11	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	4.10	4.11	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	5.10	5.11	6.0
2.0	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	2.11	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	3.10	3.11	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	4.10	4.11	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	5.10	5.11	6.0
	6	6	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	8	8	8	8	8	8	9	9	9	9	9	9	10	10	10	10	10	10	11	11	11	11	11	11	12	12	12	12	12	12
2.1	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	2.11	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	3.10	3.11	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	4.10	4.11	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	5.10	5.11	6.0
	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	8	8	8	8	8	8	9	9	9	9	9	10	10	10	10	10	11	11	11	11	11	12	12	12	12	12	13	13	13	13	13
2.2	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	2.11	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	3.10	3.11	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	4.10	4.11	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	5.10	5.11	6.0
	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	8	8	8	8	8	8	9	9	9	9	9	9	10	10	10	10	10	11	11	11	11	11	12	12	12	12	12	13	13	13	13	13	13
2.3	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	2.11	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	3.10	3.11	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	4.10	4.11	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	5.10	5.11	6.0
	6	6	6	6	6	6	6	7	7	7	7	7	7	8	8	8	8	8	8	9	9	9	9	9	9	10	10	10	10	10	11	11	11	11	11	12	12	12	12	13	13	13	13	13	14	14	14	14
2.4	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	2.11	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	3.10	3.11	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	4.10	4.11	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	5.10	5.11	6.0
	6	6	6	6	6	6	6	7	7	7	7	7	7	8	8	8	8	8	9	9	9	9	9	10	10	10	10	10	11	11	11	11	11	12	12	12	12	13	13	13	13	13	14	14	14	14	14	14
2.5	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	2.11	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	3.10	3.11	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	4.10	4.11	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	5.10	5.11	6.0
	6	6	6	6	6	6	7	7	7	7	7	8	8	8	8	8	9	9	9	9	9	10	10	10	10	10	11	11	11	11	12	12	12	12	12	13	13	13	13	14	14	14	14	15	15	15	15	15
2.6	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	2.11	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	3.10	3.11	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	4.10	4.11	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	5.10	5.11	6.0
	6	6	6	6	6	7	7	7	7	7	8	8	8	8	8	9	9	9	9	9	10	10	10	10	10	11	11	11	11	12	12	12	12	13	13	13	14	14	14	14	15	15	15	16	16	16	16	16
2.7	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	2.11	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	3.10	3.11	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	4.10	4.11	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	5.10	5.11	6.0
	6	6	6	6	6	7	7	7	7	7	8	8	8	8	9	9	9	9	10	10	10	10	10	11	11	11	11	11	12	12	12	12	13	13	13	13	13	14	14	14	14	15	15	15	15	16	16	16
2.8	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	2.11	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	3.10	3.11	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	4.10	4.11	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	5.10	5.11	6.0
	6	6	6	6	7	7	7	7	8	8	8	8	8	9	9	9	9	10	10	10	10	10	11	11	11	12	12	12	12	13	13	13	13	14	14	14	14	15	15	15	15	16	16	16	16	17	17	17
2.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	2.11	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	3.10	3.11	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	4.10	4.11	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	5.10	5.11	6.0
	6	6	6	7	7	7	7	8	8	8	8	8	9	9	9	9	10	10	10	10	11	11	11	11	11	12	12	12	12	13	13	13	13	14	14	14	15	15	15	15	16	16	16	17	17	17	18	18
2.10	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	2.11	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	3.10	3.11	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	4.10	4.11	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	5.10	5.11	6.0
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2.11	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	2.11	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	3.10	3.11	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	4.10	4.11	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	5.10	5.11	6.0
	6	7	7	7	7	8	8	8	8	8	9	9	9	9	10	10	10	10	11	11	11	11	12	12	12	12	13	13	13	13	14	14	14	14	15	15	15	16	16	16	16	17	17	17	17	18	18	18
3.0	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	2.11	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	3.10	3.11	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	4.10	4.11	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	5.10	5.11	6.0
	6	7	7	7	7	8	8	8	8	9	9	9	9	10	10	10	10	11	11	11	11	12	12	12	12	13	13	13	13	14	14	14	14	15	15	15	16	16	16	16	17	17	17	17	18	18	18	18
3.1	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	2.11	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	3.10	3.11	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	4.10	4.11	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	5.10	5.11	6.0
	7	7	7	7	8	8	8	8	9	9	9	9	10	10	10	10	11	11	11	12	12	12	12	13	13	13	13	14	14	14	15	15	15	16	16	16	17	17	17	18	18	18	19	19	19	20	20	20
3.2	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	2.11	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	3.10	3.11	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	4.10	4.11	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	5.10	5.11	6.0
	7	7	7	8	8	8	8	9	9	9	9	10	10	10	10	11	11	11	12	12	12	12	13	13	13	14	14	14	14	15	15	15	16	16	16	17	17	17	18	18	18	19	19	19	20	20	20	21
3.3	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	2.11	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	3.10	3.11	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	4.10	4.11	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	5.10	5.11	6.0
	7	7	8	8	8	8	9	9	9	9	10	10	10	10	11	11	11	12	12	12	12	13	13	13	13	14	14	14	15	15	15	15	16	16	16	17	17	17	18	18	18	19	19	19	20	20	20	21
3.4	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	2.11	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	3.10	3.11	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	4.10	4.11	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	5.10	5.11	6.0
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3.6	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	2.11	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	3.10	3.11	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	4.10	4.11	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	5.10	5.11	6.0
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3.7	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	2.11	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	3.10	3.11	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	4.10	4.11	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	5.10	5.11	6.0
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3.8	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	2.11	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	3.10	3.11	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	4.10	4.11	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	5.10	5.11	6.0
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3.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	2.11	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	3.10	3.11	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	4.10	4.11	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	5.10	5.11	6.0
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3.10	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	2.11	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	3.10	3.11	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	4.10	4.11	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	5.10	5.11	6.0
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4.6	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	2.11	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	3.10	3.11	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	4.10	4.11	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	5.10	5.11	6.0
	9	10	10	11	11	11	12	12	12	13	13	14	14	14	15	15	15	16	16	17	17	17	18	18	18	19	19	20	20	20	21	21	21	22	22	23	23	23	24	24	25	25	26	26	26	27	27	27
4.7	2.0	2.1	2.2	2.3	2.4	2.5

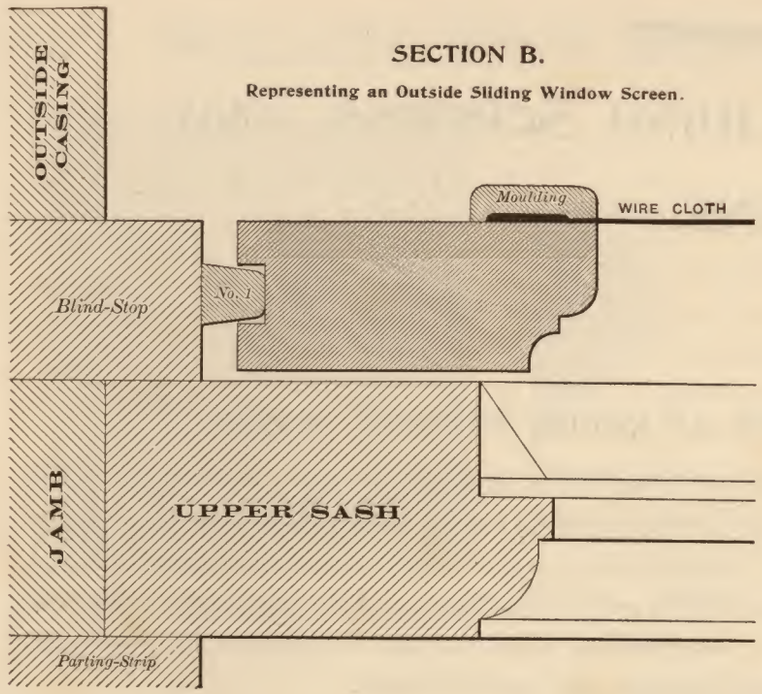
SQUARE FOOT TABLE, Showing the Number of Square Feet Contained in a Screen or Venetian Blind of Any Given Size.

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This table will also be furnished to our agents and others, when desired, printed on card board.

	6.0	6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.8	6.9	6.10	6.11	7.0	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9	7.10	7.11	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	8.10	8.11	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	9.10	9.11	10.0
2.0	6.0 12	6.1 13	6.2 13	6.3 13	6.4 13	6.5 13	6.6 13	6.7 14	6.8 14	6.9 14	6.10 14	6.11 14	7.0 14	7.1 15	7.2 15	7.3 15	7.4 15	7.5 15	7.6 15	7.7 16	7.8 16	7.9 16	7.10 16	7.11 16	8.0 16	8.1 17	8.2 17	8.3 17	8.4 17	8.5 17	8.6 17	8.7 18	8.8 18	8.9 18	8.10 18	8.11 18	9.0 18	9.1 19	9.2 19	9.3 19	9.4 19	9.5 19	9.6 19	9.7 20	9.8 20	9.9 20	9.10 20	9.11 20	10.0 20
2.1	6.0 13	6.1 13	6.2 13	6.3 13	6.4 14	6.5 14	6.6 14	6.7 14	6.8 14	6.9 15	6.10 15	6.11 15	7.0 15	7.1 15	7.2 15	7.3 16	7.4 16	7.5 16	7.6 16	7.7 16	7.8 17	7.9 17	7.10 17	7.11 17	8.0 17	8.1 17	8.2 18	8.3 18	8.4 18	8.5 18	8.6 18	8.7 19	8.8 19	8.9 19	8.10 19	8.11 19	9.0 19	9.1 19	9.2 20	9.3 20	9.4 20	9.5 20	9.6 20	9.7 21	9.8 21	9.9 21	9.10 21	9.11 21	10.0 21
2.2	6.0 13	6.1 14	6.2 14	6.3 14	6.4 14	6.5 14	6.6 15	6.7 15	6.8 15	6.9 15	6.10 15	6.11 15	7.0 16	7.1 16	7.2 16	7.3 16	7.4 16	7.5 17	7.6 17	7.7 17	7.8 17	7.9 17	7.10 17	7.11 18	8.0 18	8.1 18	8.2 18	8.3 18	8.4 19	8.5 19	8.6 19	8.7 19	8.8 19	8.9 19	8.10 20	8.11 20	9.0 20	9.1 20	9.2 20	9.3 21	9.4 21	9.5 21	9.6 21	9.7 21	9.8 22	9.9 22	9.10 22	9.11 22	10.0 22
2.3	6.0 14	6.1 14	6.2 14	6.3 15	6.4 15	6.5 15	6.6 15	6.7 15	6.8 15	6.9 16	6.10 16	6.11 16	7.0 16	7.1 16	7.2 17	7.3 17	7.4 17	7.5 17	7.6 17	7.7 18	7.8 18	7.9 18	7.10 18	7.11 18	8.0 18	8.1 19	8.2 19	8.3 19	8.4 19	8.5 19	8.6 20	8.7 20	8.8 20	8.9 20	8.10 20	8.11 21	9.0 21	9.1 21	9.2 21	9.3 21	9.4 22	9.5 22	9.6 22	9.7 22	9.8 22	9.9 23	9.10 23	9.11 23	10.0 23
2.4	6.0 14	6.1 15	6.2 15	6.3 15	6.4 15	6.5 15	6.6 16	6.7 16	6.8 16	6.9 16	6.10 16	6.11 17	7.0 17	7.1 17	7.2 17	7.3 18	7.4 18	7.5 18	7.6 18	7.7 18	7.8 18	7.9 19	7.10 19	7.11 19	8.0 19	8.1 19	8.2 20	8.3 20	8.4 20	8.5 20	8.6 20	8.7 20	8.8 21	8.9 21	8.10 21	8.11 21	9.0 21	9.1 22	9.2 22	9.3 22	9.4 22	9.5 23	9.6 23	9.7 23	9.8 23	9.9 23	9.10 24	9.11 24	10.0 24
2.5	6.0 15	6.1 15	6.2 15	6.3 16	6.4 16	6.5 16	6.6 16	6.7 16	6.8 17	6.9 17	6.10 17	6.11 17	7.0 17	7.1 18	7.2 18	7.3 18	7.4 18	7.5 18	7.6 19	7.7 19	7.8 19	7.9 19	7.10 19	7.11 20	8.0 20	8.1 20	8.2 20	8.3 20	8.4 21	8.5 21	8.6 21	8.7 21	8.8 21	8.9 22	8.10 22	8.11 22	9.0 22	9.1 22	9.2 23	9.3 23	9.4 23	9.5 23	9.6 24	9.7 24	9.8 24	9.9 24	9.10 24	9.11 25	10.0 25
2.6	6.0 15	6.1 16	6.2 16	6.3 16	6.4 16	6.5 17	6.6 17	6.7 17	6.8 17	6.9 17	6.10 18	6.11 18	7.0 18	7.1 18	7.2 19	7.3 19	7.4 19	7.5 19	7.6 19	7.7 20	7.8 20	7.9 20	7.10 20	7.11 20	8.0 20	8.1 21	8.2 21	8.3 21	8.4 21	8.5 22	8.6 22	8.7 22	8.8 22	8.9 22	8.10 23	8.11 23	9.0 23	9.1 23	9.2 23	9.3 24	9.4 24	9.5 24	9.6 24	9.7 24	9.8 25	9.9 25	9.10 25	9.11 25	10.0 25
2.7	6.0 16	6.1 16	6.2 16	6.3 17	6.4 17	6.5 17	6.6 17	6.7 17	6.8 18	6.9 18	6.10 18	6.11 18	7.0 19	7.1 19	7.2 19	7.3 19	7.4 19	7.5 20	7.6 20	7.7 20	7.8 20	7.9 20	7.10 21	7.11 21	8.0 21	8.1 21	8.2 22	8.3 22	8.4 22	8.5 22	8.6 22	8.7 23	8.8 23	8.9 23	8.10 23	8.11 24	9.0 24	9.1 24	9.2 24	9.3 24	9.4 25	9.5 25	9.6 25	9.7 25	9.8 25	9.9 26	9.10 26	9.11 26	10.0 26
2.8	6.0 16	6.1 17	6.2 17	6.3 17	6.4 17	6.5 18	6.6 18	6.7 18	6.8 18	6.9 18	6.10 19	6.11 19	7.0 19	7.1 19	7.2 20	7.3 20	7.4 20	7.5 20	7.6 20	7.7 21	7.8 21	7.9 21	7.10 21	7.11 22	8.0 22	8.1 22	8.2 22	8.3 23	8.4 23	8.5 23	8.6 23	8.7 23	8.8 24	8.9 24	8.10 24	8.11 24	9.0 24	9.1 25	9.2 25	9.3 25	9.4 25	9.5 26	9.6 26	9.7 26	9.8 26	9.9 26	9.10 27	9.11 27	10.0 27
2.9	6.0 17	6.1 17	6.2 17	6.3 18	6.4 18	6.5 18	6.6 18	6.7 19	6.8 19	6.9 19	6.10 19	6.11 19	7.0 20	7.1 20	7.2 20	7.3 20	7.4 21	7.5 21	7.6 21	7.7 21	7.8 22	7.9 22	7.10 22	7.11 22	8.0 22	8.1 23	8.2 23	8.3 23	8.4 23	8.5 24	8.6 24	8.7 24	8.8 24	8.9 25	8.10 25	8.11 25	9.0 25	9.1 25	9.2 26	9.3 26	9.4 26	9.5 26	9.6 27	9.7 27	9.8 27	9.9 27	9.10 28	9.11 28	10.0 28
2.10	6.0 17	6.1 18	6.2 18	6.3 18	6.4 18	6.5 19	6.6 19	6.7 19	6.8 19	6.9 20	6.10 20	6.11 20	7.0 20	7.1 21	7.2 21	7.3 21	7.4 21	7.5 21	7.6 22	7.7 22	7.8 22	7.9 22	7.10 23	7.11 23	8.0 23	8.1 23	8.2 24	8.3 24	8.4 24	8.5 24	8.6 25	8.7 25	8.8 25	8.9 25	8.10 26	8.11 26	9.0 26	9.1 26	9.2 26	9.3 27	9.4 27	9.5 27	9.6 28	9.7 28	9.8 28	9.9 28	9.10 29	9.11 29	10.0 29
2.11	6.0 18	6.1 18	6.2 18	6.3 19	6.4 19	6.5 19	6.6 19	6.7 20	6.8 20	6.9 20	6.10 20	6.11 21	7.0 21	7.1 21	7.2 21	7.3 22	7.4 22	7.5 22	7.6 22	7.7 23	7.8 23	7.9 23	7.10 23	7.11 24	8.0 24	8.1 24	8.2 24	8.3 25	8.4 25	8.5 25	8.6 25	8.7 26	8.8 26	8.9 26	8.10 26	8.11 26	9.0 27	9.1 27	9.2 27	9.3 27	9.4 28	9.5 28	9.6 28	9.7 28	9.8 29	9.9 29	9.10 29	9.11 29	10.0 30
3.0	6.0 18	6.1 19	6.2 19	6.3 19	6.4 19	6.5 20	6.6 20	6.7 20	6.8 20	6.9 21	6.10 21	6.11 21	7.0 21	7.1 22	7.2 22	7.3 22	7.4 22	7.5 23	7.6 23	7.7 23	7.8 23	7.9 24	7.10 24	7.11 24	8.0 24	8.1 25	8.2 25	8.3 25	8.4 25	8.5 25	8.6 26	8.7 26	8.8 26	8.9 27	8.10 27	8.11 27	9.0 27	9.1 28	9.2 28	9.3 28	9.4 28	9.5 29	9.6 29	9.7 29	9.8 30	9.9 30	9.10 30	9.11 30	10.0 30
3.1	6.0 19	6.1 19	6.2 19	6.3 20	6.4 20	6.5 20	6.6 21	6.7 21	6.8 21	6.9 21	6.10 22	6.11 22	7.0 22	7.1 22	7.2 23	7.3 23	7.4 23	7.5 23	7.6 24	7.7 24	7.8 24	7.9 24	7.10 25	7.11 25	8.0 25	8.1 25	8.2 26	8.3 26	8.4 26	8.5 26	8.6 27	8.7 27	8.8 27	8.9 27	8.10 28	8.11 28	9.0 28	9.1 28	9.2 29	9.3 29	9.4 29	9.5 30	9.6 30	9.7 30	9.8 30	9.9 31	9.10 31	9.11 31	10.0 31
3.2	6.0 19	6.1 20	6.2 20	6.3 20	6.4 21	6.5 21	6.6 21	6.7 21	6.8 22	6.9 22	6.10 22	6.11 22	7.0 23	7.1 23	7.2 23	7.3 23	7.4 24	7.5 24	7.6 24	7.7 24	7.8 25	7.9 25	7.10 25	7.11 26	8.0 26	8.1 26	8.2 26	8.3 27	8.4 27	8.5 27	8.6 27	8.7 28	8.8 28	8.9 28	8.10 28	8.11 29	9.0 29	9.1 29	9.2 30	9.3 30	9.4 30	9.5 30	9.6 31	9.7 31	9.8 31	9.9 31	9.10 32	9.11 32	10.0 32
3.3	6.0 20	6.1 20	6.2 21	6.3 21	6.4 21	6.5 21	6.6 22	6.7 22	6.8 22	6.9 22	6.10 23	6.11 23	7.0 23	7.1 24	7.2 24	7.3 24	7.4 24	7.5 25	7.6 25	7.7 25	7.8 25	7.9 26	7.10 26	7.11 26	8.0 26	8.1 27	8.2 27	8.3 27	8.4 28	8.5 28	8.6 28	8.7 28	8.8 29	8.9 29	8.10 29	8.11 29	9.0 30	9.1 30	9.2 30	9.3 31	9.4 31	9.5 31	9.6 31	9.7 32	9.8 32	9.9 32	9.10 32	9.11 33	10.0 33
3.4	6.0 20	6.1 21	6.2 21	6.3 21	6.4 22	6.5 22	6.6 22	6.7 23	6.8 23	6.9 23	6.10 23	6.11 24	7.0 24	7.1 24	7.2 25	7.3 25	7.4 25	7.5 25	7.6 26	7.7 26	7.8 26	7.9 27	7.10 27	7.11 27	8.0 27	8.1 28	8.2 28	8.3 28	8.4 28	8.5 29	8.6 29	8.7 29	8.8 29	8.9 30	8.10 30	8.11 30	9.0 30	9.1 31	9.2 31	9.3 31	9.4 32	9.5 32	9.6 32	9.7 33	9.8 33	9.9 33	9.10 34	9.11 34	10.0 34
3.5	6.0 21	6.1 21	6.2 22	6.3 22	6.4 22	6.5 22	6.6 23	6.7 23	6.8 23	6.9 24	6.10 24	6.11 24	7.0 24	7.1 25	7.2 25	7.3 25	7.4 26	7.5 26	7.6 26	7.7 26	7.8 27	7.9 27	7.10 27	7.11 28	8.0 28	8.1 28	8.2 28	8.3 29	8.4 29	8.5 29	8.6 30	8.7 30	8.8 30	8.9 30	8.10 31	8.11 31	9.0 31	9.1 32	9.2 32	9.3 32	9.4 32	9.5 33	9.6 33	9.7 33	9.8 34	9.9 34	9.10 34	9.11 35	10.0 35
3.6	6.0 21	6.1 22	6.2 22	6.3 22	6.4 23	6.5 23	6.6 23	6.7 24	6.8 24	6.9 24	6.10 24	6.11 25	7.0 25	7.1 25	7.2 26	7.3 26	7.4 26	7.5 26	7.6 27	7.7 27	7.8 27	7.9 28	7.10 28	7.11 28	8.0 28	8.1 29	8.2 29	8.3 29	8.4 30	8.5 30	8.6 30	8.7 31	8.8 31	8.9 31	8.10 31	8.11 32	9.0 32	9.1 32	9.2 33	9.3 33	9.4 33	9.5 33	9.6 34	9.7 34	9.8 34	9.9 35	9.10 35	9.11 35	10.0 35
3.7	6.0 22	6.1 22	6.2 23	6.3 23	6.4 23	6.5 23	6.6 24	6.7 24	6.8 24	6.9 25	6.10 25	6.11 25	7.0 26	7.1 26	7.2 26	7.3 26	7.4 27	7.5 27	7.6 27	7.7 28	7.8 28	7.9 28	7.10 29	7.11 29	8.0 29	8.1 29	8.2 30	8.3 30	8.4 30	8.5 31	8.6 31	8.7 31	8.8 32	8.9 32	8.10 32	8.11 32	9.0 33	9.1 33	9.2 33	9.3 34	9.4 34	9.5 34	9.6 35	9.7 35	9.8 35	9.9 35	9.10 36	9.11 36	10.0 36
3.8	6.0 22	6.1 23	6.2 23	6.3 23	6.4 24	6.5 24	6.6 24	6.7 25	6.8 25	6.9 25	6.10 26	6.11 26	7.0 26	7.1 26	7.2 27	7.3 27	7.4 27	7.5 28	7.6 28	7.7 28	7.8 29	7.9 29	7.10 29	7.11 29	8.0 30	8.1 30	8.2 30	8.3 31	8.4 31	8.5 31	8.6 32	8.7 32	8.8 32	8.9 33	8.10 33	8.11 33	9.0 33	9.1 34	9.2 34	9.3 34	9.4 35	9.5 35	9.6 35	9.7 36	9.8 36	9.9 36	9.10 37	9.11 37	10.0 37
3.9	6.0 23	6.1 23	6.2 24	6.3 24	6.4 24	6.5 25	6.6 25	6.7 25	6.8 25	6.9 26	6.10 26	6.11 26	7.0 27	7.1 27	7.2 27	7.3 28	7.4 28	7.5 28	7.6 29	7.7 29	7.8 29	7.9 30	7.10 30	7.11 30	8.0 30	8.1 31	8.2 31	8.3 32	8.4 32	8.5 33	8.6 33	8.7 33	8.8 33	8.9 34	8.10 34	8.11 34	9.0 34	9.1 35	9.2 35	9.3 35	9.4 35	9.5 36	9.6 36	9.7 36	9.8 37	9.9 37	9.10 37	9.11 38	10.0 38
3.10	6.0 23	6.1 24	6.2 24	6.3 24	6.4 25	6.5 25	6.6 25	6.7 26	6.8 26	6.9 26	6.10 27	6.11 27	7.0 27	7.1 28	7.2 28	7.3 28	7.4 29	7.5 29	7.6 29	7.7 30	7.8 30	7.9 30	7.10 31	7.11 31	8.0 31	8.1 31	8.2 32	8.3 32	8.4 32	8.5 33	8.6 33	8.7 33	8.8 34	8.9 34	8.10 34	8.11 35	9.0 35	9.1 35	9.2 36	9.3 36	9.4 36	9.5 37	9.6 37	9.7 37	9.8 38	9.9 38	9.10 38	9.11 38	10.0 39
3.11	6.0 24	6.1 24	6.2 25	6.3 25	6.4 25	6.5 26	6.6 26	6.7 26	6.8 27	6.9 27	6.10 27	6.11 28	7.0 28	7.1 28	7.2 29	7.3 29	7.4 29	7.5 30	7.6 30	7.7 30	7.8 31	7.9 31	7.10 31	7.11 31	8.0 32	8.1 32	8.2 32	8.3 33	8.4 33	8.5 33	8.6 34	8.7 34	8.8 34	8.9 35	8.10 35	8.11 35	9.0 36	9.1 36	9.2 36	9.3 37	9.4 37	9.5 37	9.6 38	9.7 38	9.8 38	9.9 39	9.10 39	9.11 39	10.0 40
4.0	6.0 24	6.1 25	6.2 25	6.3 25	6.4 26	6.5 26	6.6 26	6.7 27	6.8 27	6.9 27	6.10 28	6.11 28	7.0 28	7.1 29	7.2 29	7.3 29	7.4 30	7.5 30	7.6 30	7.7 31	7.8 31	7.9 31	7.10 32	7.11 32	8.0 32	8.1 33	8.2 33	8.3 33	8.4 34	8.5 34	8.6 34	8.7 35	8.8 35	8.9 35	8.10 36	8.11 36	9.0 36	9.1 37	9.2 37	9.3 37	9.4 38	9.5 38	9.6 38	9.7 39	9.8 39	9.9 39	9.10 40	9.11 40	10.0 40
4.1	6.0 25	6.1 25	6.2 26	6.3 26	6.4 26	6.5 27	6.6 27	6.7 27	6.8 28	6.9 28	6.10 28	6.11 29	7.0 29	7.1 29	7.2 30	7.3 30	7.4 30	7.5 31	7.6 31	7.7 31	7.8 32	7.9 32	7.10 32	7.11 33	8.0 33	8.1 33	8.2 34	8.3 34	8.4 35	8.5 35	8.6 35	8.7 36	8.8 36	8.9 36	8.10 37	8.11 37	9.0 37	9.1 38	9.2 38	9.3 38	9.4 39	9.5 39	9.6 39	9.7 40	9.8 40	9.9 40	9.10 41	9.11 41	10.0 41
4.2	6.0 25	6.1 26	6.2 26	6.3 27	6.4 27	6.5 27	6.6 28	6.7 28	6.8 28	6.9 29	6.10 29	6.11 29	7.0 30	7.1 30	7.2 30	7.3 31	7.4 31	7.5 31	7.6 32	7.7 32	7.8 32	7.9 33	7.10 33	7.11 33	8.0 34	8.1 34	8.2 35	8.3 35	8.4 35	8.5 36	8.6 36	8.7 36	8.8 37	8.9 37	8.10 37	8.11 38	9.0 38	9.1 38	9.2 39	9.3 39	9.4 39	9.5 40	9.6 40	9.7 40	9.8 41	9.9 41	9.10 41	9.11 42	10.0 42
4.3	6.0 26	6.1 26	6.2 27	6.3 27	6.4 27	6.5 28	6.6 28	6.7 28	6.8 29	6.9 29	6.10 30	6.11 30	7.0 30	7.1 31	7.2 31	7.3 31	7.4 32	7.5 32	7.6 32	7.7 33	7.8 33	7.9 33	7.10 34	7.11 34	8.0 34	8.1 35	8.2 35	8.3 36	8.4 36	8.5 36	8.6 37	8.7 37	8.8 37	8.9 38	8.10 38	8.11 38	9.0 39	9.1 39	9.2 39	9.3 40	9.4 40	9.5 41	9.6 41	9.7 41	9.8 42	9.9 42	9.10 42	9.11 43	10.0 43
4.4	6.0 26	6.1 27	6.2 27	6.3 28	6.4 28	6.5 28	6.6 29	6.7 29	6.8 29	6.9 30	6.10 30	6.11 30	7.0 31	7.1 31	7.2 32	7.3 32	7.4 32	7.5 33	7.6 33	7.7 33	7.8 34	7.9 34	7.10 34	7.11 35	8.0 35	8.1 36	8.2 36	8.3 36	8.4 37	8.5 37	8.6 37	8.7 38	8.8 38	8.9 38	8.10 39	8.11 39	9.0 39	9.1 40	9.2 40	9.3 41	9.4 41	9.5 41	9.6 42	9.7 42	9.8 42	9.9 43	9.10 43	9.11 43	10.0 44
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4.6	6.0 27	6.1 28	6.2 28	6.3 29	6.4 29	6.5 29	6.6 30	6.7 30	6.8 30	6.9 31	6.10 31	6.11 32	7.0 32	7.1 32	7.2 33	7.3 33	7.4 33	7.5 34	7.6 34	7.7 35	7.8 35	7.9 35	7.10 36	7.11 36	8.0 36	8.1 37	8.2 37	8.3 38	8.4 38	8.5 38	8.6 39	8.7 39	8.8 39	8.9 40	8.10 40	8.11 41	9.0 41	9.1 41	9.2 42	9.3 42	9.4 42	9.5 43	9.6 43	9.7 44	9.8 44	9.9 44	9.10 45	9.11 45	10.0 45
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4.8	6.0 28	6.1 29	6.2 29	6.3 30	6.4 30	6.5 30	6.6 31	6.7 31	6.8 32	6.9 32	6.10 32	6.11 33	7.0 33	7.1 34	7.2 34	7.3 34	7.4 35	7.5 35	7.6 35	7.7 36	7.8 36	7.9 37	7.10 37	7.11 38	8.0 38	8.1 39	8.2 39	8.3 39	8.4 40	8.5 40	8.6 41	8.7 41	8.8 41	8.9 42	8.10 42	8.11 42	9.0 42	9.1 43	9.2 43	9.3 44	9.4 44	9.5 45	9.6 45	9.7 46	9.8 46	9.9 46	9.10 47	9.11 47	10.0 47
4.9	6.0 29	6.1 29	6.2 30	6.3 30	6.4 31	6.5 31	6.6 31	6.7 32	6.8 32	6.9 33	6.10 33	6.11 34	7.0 34	7.1 34	7.2 35	7.3 35	7.4 35	7.5 36	7.6 36	7.7 37	7.8 37	7.9 38	7.10 38	7.11 38	8.0 38	8.1 39	8.2 39	8.3 40	8.4 40	8.5 40	8.6 41	8.7 41	8.8 42	8.9 42	8.10 42	8.11 43	9.0 43	9.1 44	9.2 44	9.3 44	9.4 45	9.5 45	9.6 46	9.7 46	9.8 47	9.9 47	9.10 48	9.11 48	10.0 48
4.10	6.0 29	6.1 30	6.2 30	6.3 31	6.4 31	6.5 32	6.6 32	6.7 32	6.8 33	6.9 33	6.10 34	6.11 34	7.0 34	7.1 35	7.2 35	7.3 36	7.4 36	7.5 36	7.6 37	7.7 37	7.8 38	7.9 38	7.10 38	7.11 39	8.0 39	8.1 40	8.2 40	8.3 40	8.4 41	8.5 41	8.6 42	8.7 42	8.8 42	8.9 43	8.10 43	8.11 44	9.0 44	9.1 44	9.2 45	9.3 45	9.4 46	9.5 46	9.6 46	9.7 47	9.8 47	9.9 48	9.10 48	9.11 48	10.0 49
4.11	6.0 30	6.1 30	6.2 31	6.3 31	6.4 32	6.5 32	6.6 32	6.7 33	6.8 33	6.9 34	6.10 34	6.11 34	7.0 35	7.1 35	7.2 36	7.3 36	7.4 37	7.5 37	7.6 37	7.7 38	7.8 38	7.9 39	7.10 39	7.11 39	8.0 40	8.1 40	8.2 41	8.3 41	8.4 41	8.5 42	8.6 42	8.7 43	8.8 43	8.9 44	8.10 44	8.11 44	9.0 45	9.1 45	9.2 46	9.3 46	9.4 46	9.5 47	9.6 47	9.7 48	9.8 48	9.9 48	9.10 49	9.11 49	10.0 50
5.0	6.0 30	6.1 31	6.2 31	6.3 32	6.4 32	6.5 33	6.6 33	6.7 33	6.8 34	6.9 34	6.10 35	6.11 35	7.0 35	7.1 36	7.2 36	7.3 37	7.4 37	7.5 38	7.6 38	7.7 38	7.8 39	7.9 39	7.10 40	7.11 40	8.0 40	8.1 41	8.2 41	8.3 42	8.4 42	8.5 43	8.6 43	8.7 43	8.8 44	8.9 44	8.10 45	8.11 45	9.0 45	9.1 46	9.2 46	9.3 47	9.4 47	9.5 48	9.6 48	9.7 48	9.8 49	9.9 49	9.10 50	9.11 50	10.0 50

This table is arranged to show no less than 6 square feet, this being our minimum charge for window screens. Venetian Blinds are charged for at not less than 15 square feet. Fractions of inches in size of article, and fractions of a foot in result of calculation, are not counted. For instance, a screen measuring 2.10½ x 5.8½ must be figured as measuring 2.11 x 5.9 and as containing 17 square feet.



SECTION B.

Representing an Outside Sliding Window Screen.

WILLER'S SPRING-BALANCED SLIDING SCREEN,

FOR OUTSIDE USE.

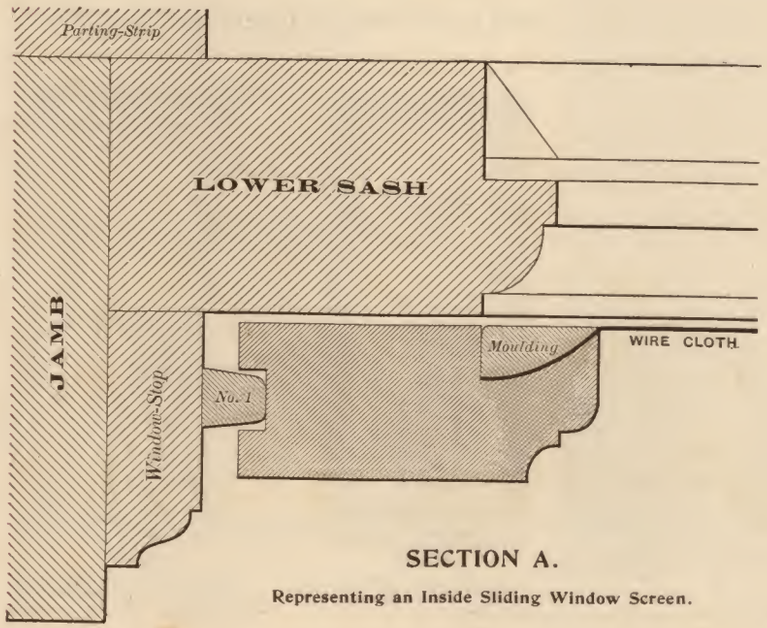
An Outside Sliding Screen is better than an Inside Sliding Screen, and should always be used where there are no Outside Blinds or where the construction of the window-frame isn't such as to prevent it.

When used to cover the lower half of the window, the bottom-sash can be raised to any height you choose and the opening will always be covered by the window-screen; when used to cover the upper part of the window, the upper sash must be let down far enough so that the upper rail of the sash will rest against the upper rail of the screen-frame.

The dark-shaded portions of the annexed diagram, Section B, represent a full-size section of **Willer's Spring-Balanced Sliding Screen** as we furnish it for **Outside** use. As shown in the diagram, the edges of the wire-cloth are covered by a Raised Moulding. This style of moulding will invariably be used on all our Outside Sliding Screens unless distinctly ordered otherwise.

Outside Sliding Screens can also be moulded as shown in diagram, Section A; this style of moulding, however, should only be ordered in cases where absolutely necessary, where, for instance, there are outside blinds and where the raised moulding would strike against the blind.

Outside Screens are best if made of pine and painted to suit the color of sash or window-frame.



SECTION A.

Representing an Inside Sliding Window Screen.

WILLER'S SPRING-BALANCED SLIDING SCREEN,

FOR INSIDE USE.

An Inside Sliding Screen should be used in cases where there are Outside Blinds, or where the construction of the window-frame is such as to prevent the use of an Outside Screen.

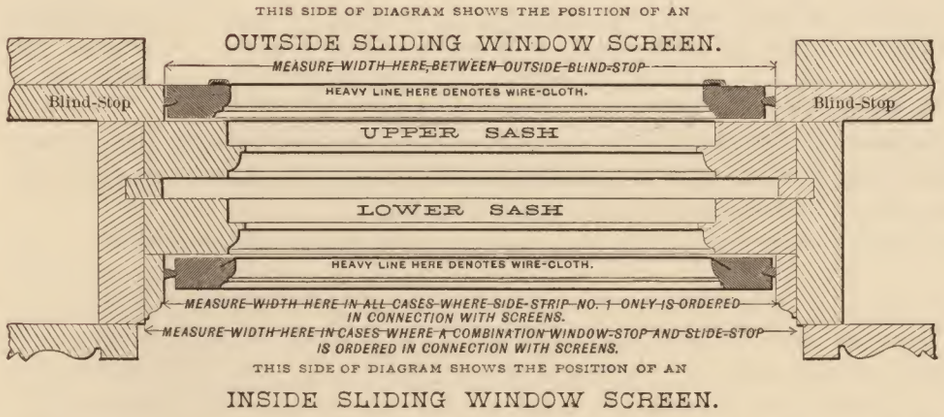
An Inside Screen is thoroughly fly-proof only if used to cover the upper half of the window, in which case the upper sash must be let down as far as it will go. If used to cover the lower part of the window, the screen will be fly-proof only if the lower sash can be raised up to the top of window-frame; the usual sash-lock, however, generally prevents this.

The dark-shaded portions of the annexed diagram, Section A, represent a full-size section of **Willer's Spring-Balanced Sliding Screen** as we furnish it for **Inside** use. As shown in the diagram, the edges of the wire-cloth are covered by a Sunk Moulding. By moulding the screen-frame in this manner, the wire-cloth comes close against the rail of the sash when partly raised, preventing the crawling in of insects between these parts.

Inside Screens should be made of the same wood and finish as the casings of the window.

DIRECTIONS FOR MEASURING AND ORDERING

WILLER'S SPRING-BALANCED SLIDING SCREENS, AND WILLER'S DROP SLIDING SCREENS.



FOR AN INSIDE WINDOW SCREEN.

Width.—Where the window-frame is already provided with window-stops, and the Screen Slide-strips No. 1, which we furnish with the screens, are to go on these window-stops, then measure width between the face of these window-stops; where, however, no window-stops are yet provided, and you order any one of the combination window-stops and slide-strips shown on another page of this catalogue, in connection with screens, then give measurements between jambs. See annexed diagram.

Height.—Measure from window-stool to top of bottom sash when window is closed; then raise the bottom sash up as high as it will go and convince yourself that the top rail of the screen when in use will lie against the bottom-rail of the sash; if it will not, then raise the bottom sash as high as it will go and measure from window-stool to a point about two inches above the open space of the window, as shown by arrow lines in Fig. 1 below. In all cases the screen must cover a portion of the lower sash-rail when sash is raised up as high as it will go.

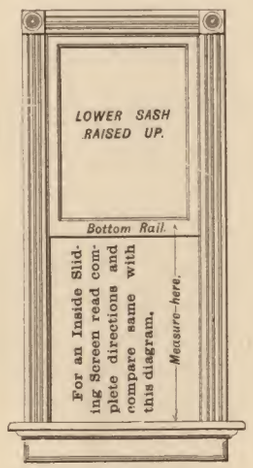


Fig. 1.
Shows manner of measuring the height for an **Inside** Window Screen.

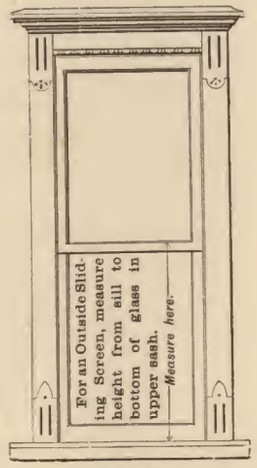


Fig. 2.
Shows manner of measuring the height for an **Outside** Window Screen.

FOR AN OUTSIDE WINDOW SCREEN.

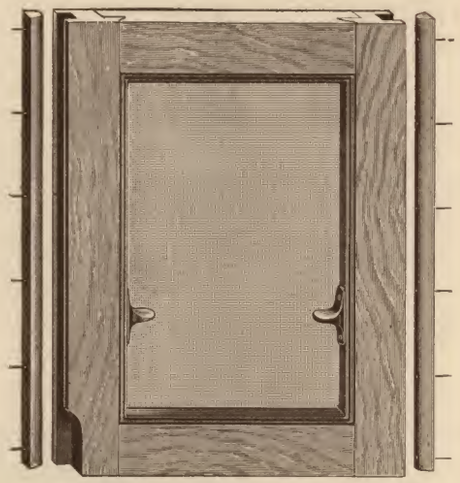
Width.—Measure between blind-stops, as shown in above diagram.

Height.—Measure from window-sill to bottom of glass in upper sash, as shown by arrow lines in Fig. 2, so that the screen will cover a portion of the lower rail of the top sash when window is closed.

SPECIAL NOTICE AS TO WIDTHS.

In all cases, whether outside or inside screens are wanted, measurements for widths must always include the slide-strips wanted; or in other words, must be taken between those spaces in the window upon which the slide-strips ordered in connection with the screens will be placed. We make our own allowance in the width of the screen frame for the space occupied by either the slide-strip or the combination window-stop and slide-strip.

WILLER'S DROP SLIDING SCREEN (without springs.)



Cut showing Willer's Drop Sliding Screen as we furnish it complete, with Slide-Strips on which it slides.

COVERING THE LOWER HALF OF THE WINDOW ONLY.

WE make this Screen to supply the demand for a Sliding Screen a little less expensive than our Spring-balanced Sliding Screen, especially for use on Apartment Buildings, Flats and Rented Buildings in general, where it is considered necessary only to cover the lower half of the window. It is just as good a Screen as our Spring-balanced Screen, is made of the same grade of material and has the same finish and general appearance, except that it is not provided with any springs. It can therefore be used only to cover the **lower** half of the window. The grooves in both side-stiles of the Screen-frame are of the same depth and the Slide-Strips are furnished of the same length only as the Screen is high. The Screen is removed from the window by sliding it up until it comes off the Slide-Strips; one corner of the Screen, as shown in cut, is partly cut away to more readily accomplish this and permitting both Slide-Strips to be of the same length.

Brass Numbering Plates and Japanned Screen Lifts No. 6, go with each Screen. These Screens should always be ordered for outside use. Directions for measuring and ordering are the same as for Spring-balanced Screens. No Screen figured at less than six square feet.

RESIDENCE OF

DR. A. BLAIR THAW,

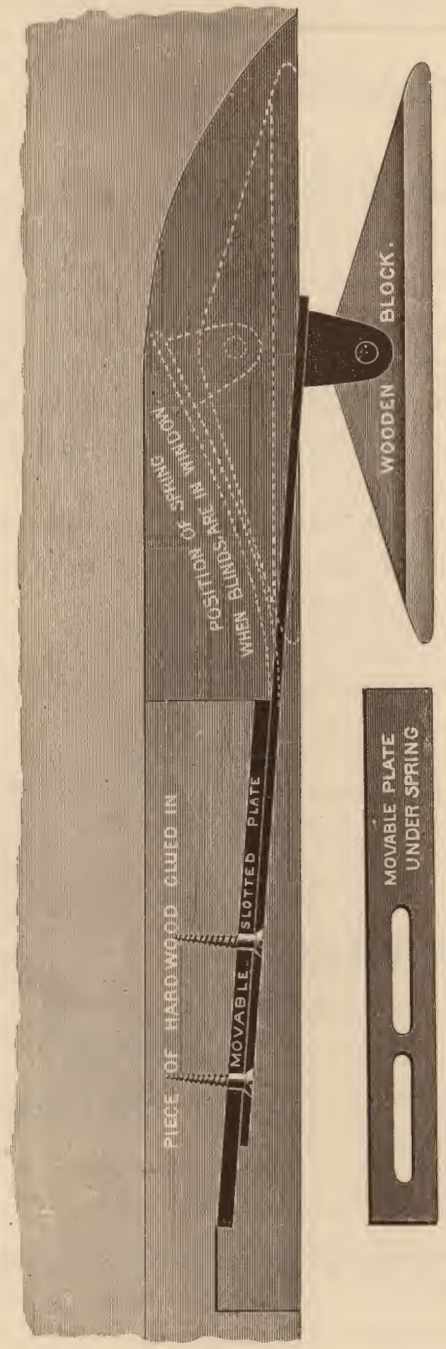
PIERMONT, N. Y.

McKIM, MEAD AND WHITE, Architects,
Mohawk Building, New York City.



FURNISHED THROUGHOUT WITH

WILLER'S SLIDING AND FOLDING BLINDS.



WILLER'S STANDARD SLIDING BLIND SPRING, NO. 3.

PATENTED AUGUST 30, 1886.

USED EXCLUSIVELY IN WILLER'S SPRING-BALANCED SLIDING WINDOW SCREENS.

ANNEXED engraving is a full-sized illustration of our Balancing Spring. The pivoted friction-block at the end is of wood; it has better adhesive qualities than metal, and when screens are moved up and down, does not mar or scratch the surface of the slide-strips. By the use of this spring, the slide-strips are always clean and smooth. The slotted plate shown in cut lies under the spring and is moved forward or back to increase or diminish the power of the spring. The spring steel is specially manufactured for us and is made of the very best material suitable for the purpose.

BRASS NUMBERING PLATES, FOR NUMBERING WINDOW SCREENS.



Fac Simile of Brass Label, attached to all of our Screens, assuring their genuineness.

ALL of our screens, whether sliding, folding or stationary screens, are supplied with Brass Numbering Plates permanently secured thereon. Duplicates of these numbers are sent with the screens to be permanently attached to the corresponding window-frame. These will at all times tell you exactly to which window a certain screen belongs, and will be of great convenience when taking out the screens in the fall, storing them over winter in a barn or garret, and putting them back again in the windows during spring or summer. The brass numbers consist of a numbered stamped brass plate and a loose brass pin, as illustrated in cut herewith. All screens will be numbered according to the numbers given us on the order blanks. If the orders we receive call for no particular numbers for screens, we will number them (with brass numbers) according to our own judgment and will send duplicates of these with the screens, so that the window-frames may be correspondingly numbered. We have these numbers from No. 1 up to No. 150.



LIST OF WOODS AND FINISHES.

For convenience in ordering and as a guide for our patrons in making their selections, we print herewith a list of Woods and Finishes principally used for Window Screens and Screen Doors:

50—MEXICAN MAHOGANY, Natural Color.
51—WHITE BIRCH, Natural Color.
52—CHERRY, Natural Color.
53—PLAIN MAPLE, Natural Color.
54—RED BIRCH, Natural Color.
55—CHESTNUT, Natural Color.
56—CHERRY, Stained Mahogany.
57—ASH, Natural Color.
58—BIRCH, Stained Mahogany.
59—QUARTERED WHITE OAK, Natural Color.
60—QUARTERED RED OAK, Natural Color.
61—PLAIN WHITE OAK, Natural Color.
62—OAK, Stained Antique Umber.
63—OAK, Stained Antique Black.
65—OAK, Stained Antique Dark Green.
66—PLAIN RED OAK, Natural Color.
67—QUARTERED SYCAMORE, Natural Color.
68—GUM, Natural Color.
69—BEECH, Natural Color.
70—BIRD'S-EYE MAPLE, Natural Color.
71—BUTTERNUT, Natural Color.
72—WALNUT, Natural Color.
73—CUBA MAHOGANY, Natural Color.
74—YELLOW POPLAR (Whitewood), Stained Light Cherry.
75—YELLOW POPLAR (Whitewood), Stained Medium Cherry.
76—YELLOW POPLAR (Whitewood), Stained Dark Cherry.
77—YELLOW POPLAR (Whitewood), Stained Walnut.
78—YELLOW POPLAR (Whitewood), Natural Color.
79—WHITE PINE, Stained Light Cherry.
80—WHITE PINE, Natural Color.
81—CALIFORNIA RED WOOD, Natural Color.
82—CYPRESS, Natural Color.
83—NORWAY OR HARD PINE, Natural Color.
84—CURLY SOUTHERN PINE, Natural Color.
85—WHITE PINE, Stained Medium Cherry.
86—WHITE PINE, Painted White.
87—WHITE PINE, Painted Cream.
88—WHITE PINE, Painted Yellow.
89—WHITE PINE, Painted Ochre.
90—WHITE PINE, Painted Umber.
91—WHITE PINE, Painted Black.
92—WHITE PINE, Painted Bronze Green.
93—WHITE PINE, Painted Olive Green.
94—WHITE PINE, Painted Indian Red.
95—WHITE PINE, Painted Light Drab.
96—WHITE PINE, Painted Dark Drab.

Samples of any of the above sent upon application.

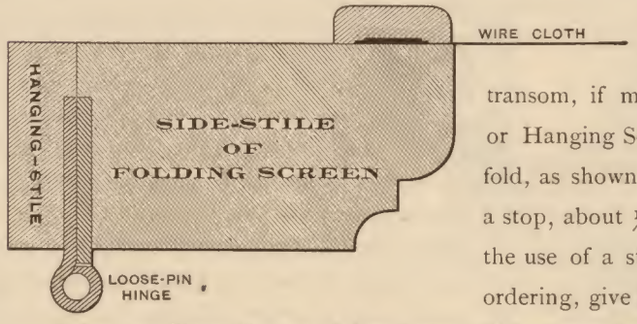
WILLER'S INSIDE FOLDING SCREENS,

FOR FRENCH OR CASEMENT WINDOWS.

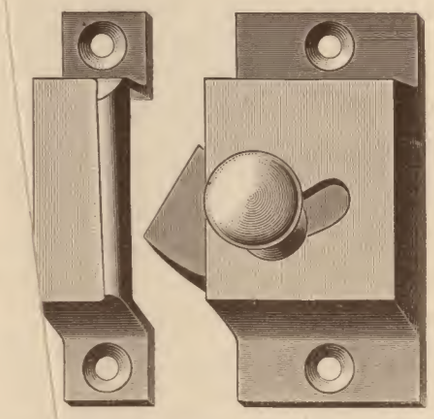


WILLER'S INSIDE FOLDING SCREEN,
For French or Casement Windows.

WHERE French windows open towards the inside of the room, the proper way to screen such windows is by an Outside Screen covering the entire opening. Sometimes, however, such windows open towards the outside, in which case they can not be covered by an Outside Screen nor by an Inside Sliding Screen, sliding up and down. We therefore suggest the use of Double Inside Folding Screens, as herewith illustrated. These screens must cover the entire opening occupied by the folding sash. Where there is a transom above the folding sash, the folding screens need to cover only that part of the window being below the transom; the transom, if made to open towards the inside, can be covered by an Outside Stationary or Hanging Screen. We will furnish these Folding Screens with a hanging-stile to each fold, as shown by section herewith, and with rabbeted joints in the center. We also furnish a stop, about ½x⅞ inch, to go across the top for screens to strike against; for the bottom, the use of a stop is not advisable, as the bolt is sufficient to keep the screens in place. In ordering, give full measurements, we making our own allowances for the hanging-stiles.



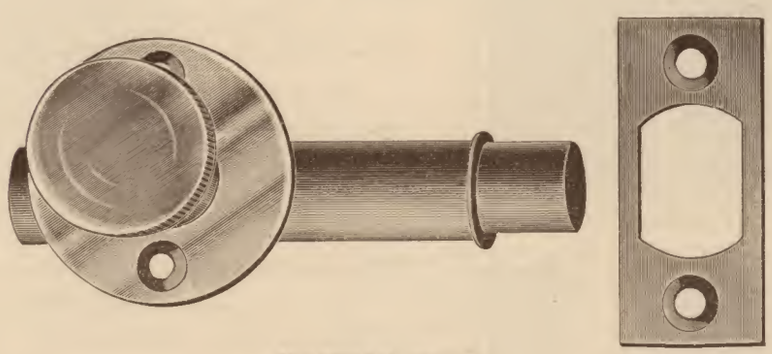
Below are illustrations and description of Hardware we furnish for these screens upon special order.



FRENCH WINDOW CATCH,

With "Diamond" No-Friction Bolt.

No. 1841 P—Genuine Bronze, Natural Finish, . Each, ...
No. A B 1841 P—Genuine Bronze, Antique Copper Finish, ... Each, ...

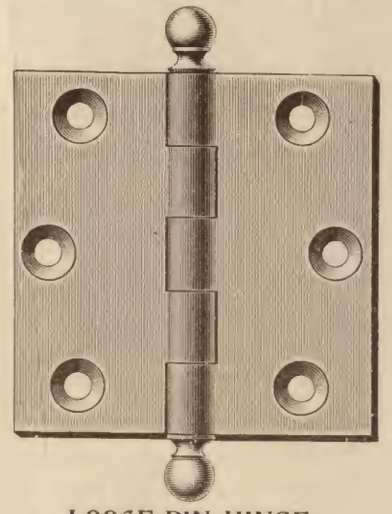


MORTISE BOLT,

For Top and Bottom of Left-hand Folding Screen.

Use a 9-16 inch bit for hole of barrel.

No. 03—Genuine Bronze, Natural Finish, . . Each, ...
No. 03½—Genuine Bronze, Antique Copper Finish, ... Each, ...



LOOSE-PIN HINGE,

Ball Tips, Size 2x2 Inches.

No. 289½—Wrought Steel, Polished, Bronze-Plated, ... Per pair, ...
No. 830 P—Genuine Bronze, Natural Finish, Per pair, ...
No. A B 830 P—Genuine Bronze, Antique Copper Finish, ... Per pair, ...

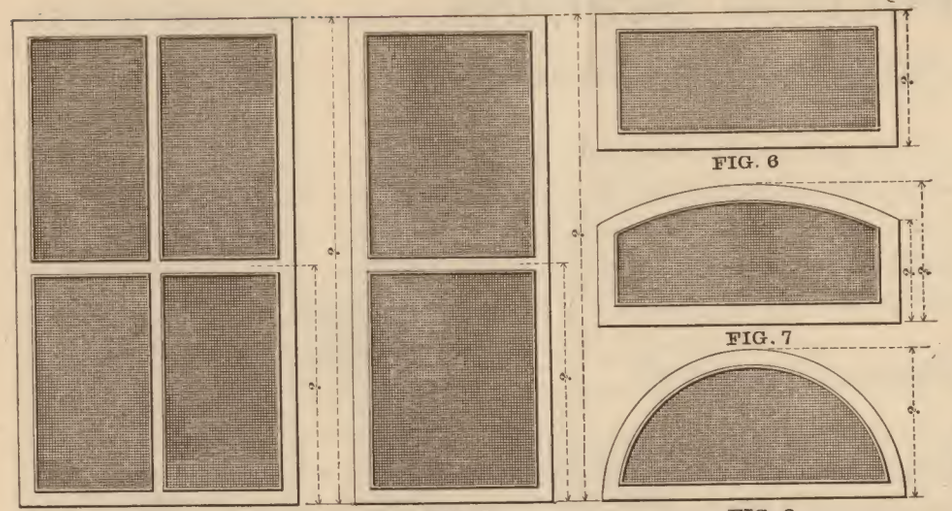


FIG. 1

FIG. 2

FIG. 8

FIG. 6

FIG. 7

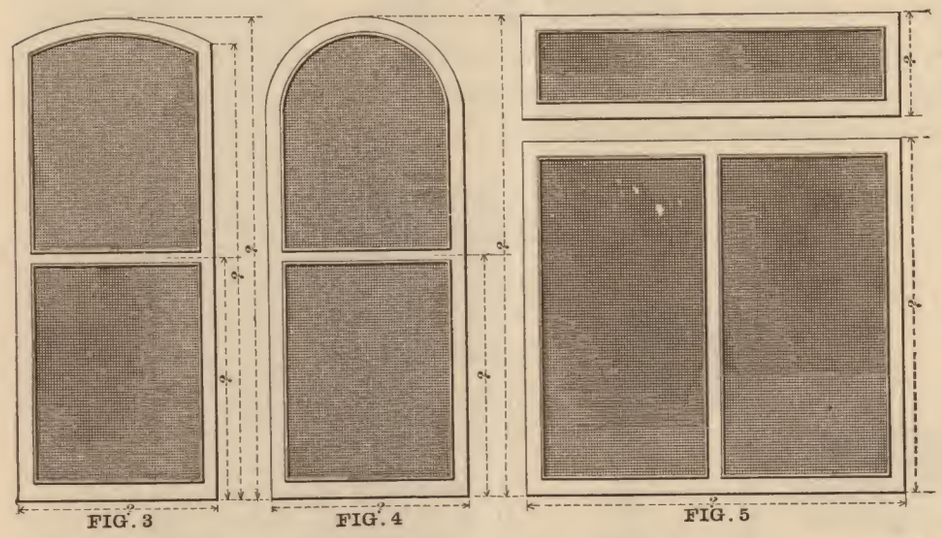


FIG. 3

FIG. 4

FIG. 5

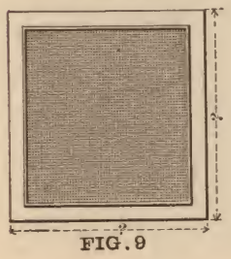


FIG. 9

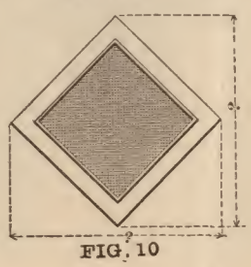


FIG. 10

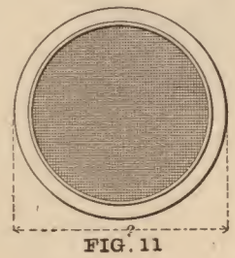


FIG. 11

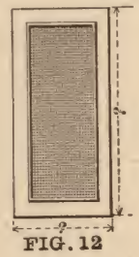


FIG. 12

WILLER'S OUTSIDE STATIONARY OR HANGING WINDOW SCREENS.

THESE Screens cover the entire window on the outside and are set between the outside casings or in the place usually occupied by storm-sash or outside blinds. They are not adapted to windows covered by outside blinds. A good many people prefer this kind of a Screen to that of a sliding-screen for the reason that the window is always entirely covered by the Screen and any part of the window can at any time be opened without giving insects any opportunity for entering the house.

Heretofore such Screens were usually permanently secured to the window, allowing water, in case of heavy showers, to collect on the window-sill and run into the rooms and preventing ready access to the windows for the purpose of cleaning them. These objections are entirely done away with by the use of our Screen Water Drains, described on page 243 and our Outside Screen and Storm Sash Hinges and Buttons described on page 268.

The accompanying engravings illustrate most of the different forms in use.

Fig. 1 shows a Screen adapted for a check-rail window of more than usual width necessitating the use of an upright-bar as well as a cross-bar. The largest rolls of wire-cloth we use are 48 inches wide, and screen frames too wide to receive this width of wire must necessarily be provided with a wooden bar to enable us to use narrower widths of wire-cloth.

Fig. 2 represents the standard form of Screen for all ordinary sized check-rail windows, with one cross-bar in center or on line of check-rail in window. Fig. 3 is the same form with a Segment Head and Fig. 4 shows the same Screen with a Circular Head.

Fig. 5 represents a Screen for a large front window with a Transom over same provided such Transom can be opened. Where this Transom is a fixed one, no screen is necessary. Where the lower screen is less than 50 inches wide, no up-right bar is necessary.

Figs. 6, 7 and 8, represent forms of Cellar Screens and Transoms. Figs. 9, 10, 11 and 12, forms of Pantry, Gable and other windows.

The dotted lines and interrogation marks in each diagram, indicate the manner in which measurements must be given for such Screens. Where there are cross-bars, measurements must be given from the bottom (or from the top, if so specially stated in order) to the **center** of cross-bar. Upright bars are always placed in the center.

DIRECTIONS FOR MEASURING AND ORDERING

OUTSIDE STATIONARY OR HANGING WINDOW SCREENS.

POSITION OF AN

OUTSIDE STATIONARY WINDOW-SCREEN.

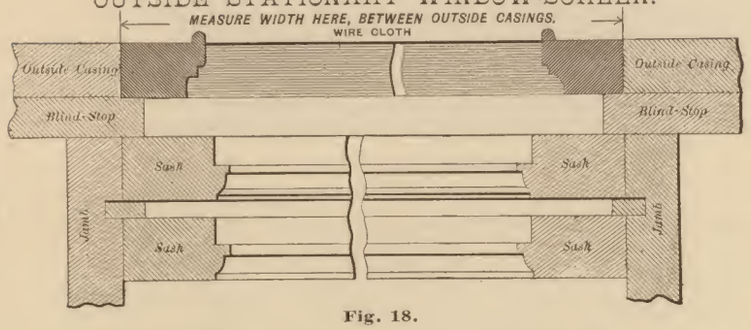


Fig. 18.

Showing the position of an Outside Stationary Window Screen, with the wired side towards the **Outside.**

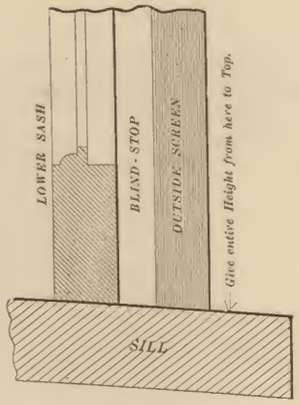


Fig. 24.

Showing Bottom of Outside Screen resting free on top of sill.

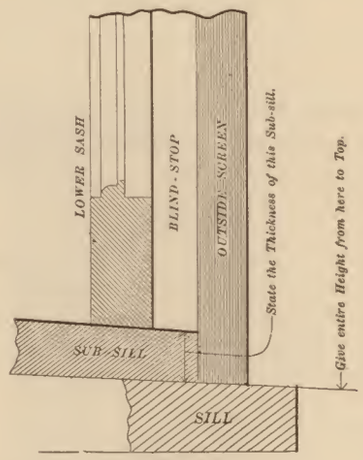


Fig. 25.

Showing Bottom of Outside Screen resting on top of sill and against a sub-sill.

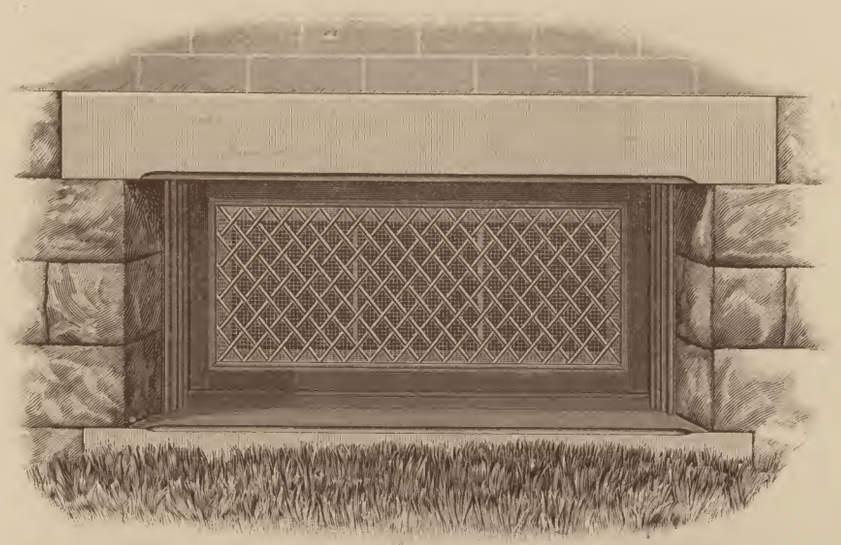
Of Importance where Water Drains are ordered in connection with Screens.

MEASURE **width** between edges of outside casings, as shown in Diagram Fig. 18, and **height** between top of sill, on which the Screen is to rest, and under edge of outside casing on top. Give the distance from bottom or top to center of check-rail in window-sash, so that the cross-bar in the Screen will come exactly opposite the check-rail and cover it. State thickness of Screen, whether $\frac{7}{8}$, $1\frac{1}{16}$ or $1\frac{1}{8}$ inch; this thickness should correspond exactly with the thickness of the outside casing. Mention wood wanted and how the Screens are to be finished or painted. If painted, state color wanted. If you are particular as to the color, send us a small sample of this color by cutting a small chip off from the window-sash or outside casing. Generally outside Screens are painted to match the outside color of the sash, but as the Screen, when in use, hides the view of the sash, it is not necessary that this color be followed exactly; one of our standard colors, nearest to this in shade, selected from our List of Woods and Finishes, will usually be found to be perfectly satisfactory.

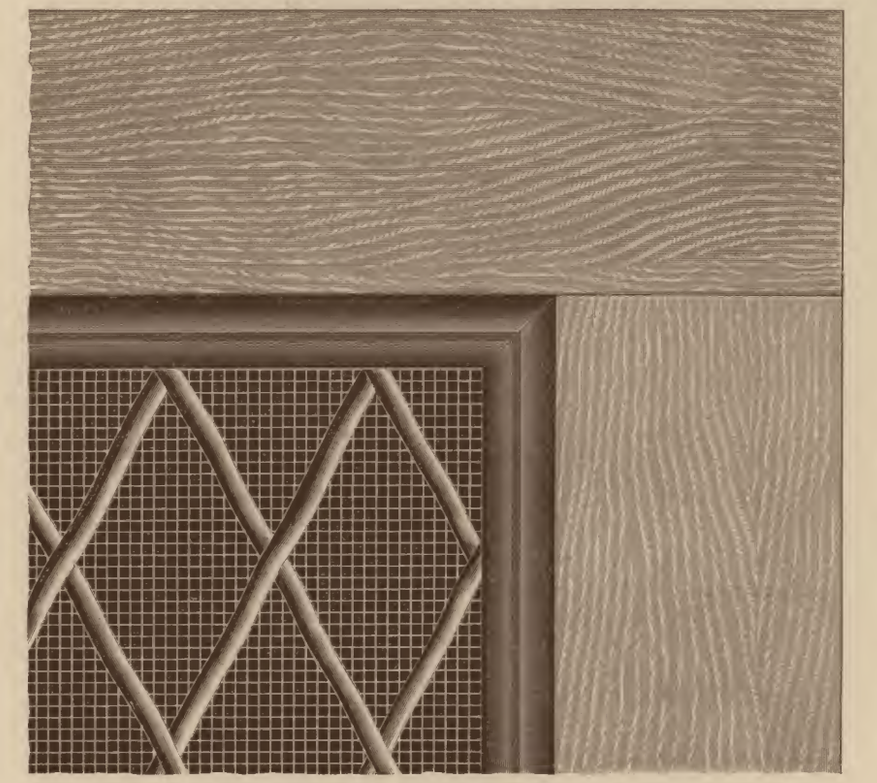
WILLER'S SCREEN WATER DRAIN.

WHERE this is ordered in connection with Screen, compare Diagrams Fig. 24 and Fig. 25. If Screen rests free on top of sill, as shown in Diagram Fig. 24, we cut the necessary opening for the Water Drain straight through the bottom-rail of the Screen. Where the bottom of the Screen however rests against a sub-sill, as shown in Diagram Fig. 25, we cut this hole on a bevel towards the inside of frame, so that it is high enough on the inside for the water to flow off from the sub-sill and through this hole in the Screen. In this case we must know the thickness or height of this sub-sill.

In all cases, where not specially otherwise ordered, we presume that Screen rests free on sill as in Fig. 24, and will cut opening accordingly. The Water Drain is furnished separately and is to be fastened to the Screen when Screen is properly fitted. See illustration of Water Drain on page 243.



Appearance of Willer's Combination Guard and Screen in use.



Full Size Appearance of Frame and Wire.

WILLER'S
COMBINATION GUARD AND SCREEN FOR CELLAR WINDOWS.

PROTECTS THE GLASS IN CELLAR WINDOWS.
KEEPS FLIES AND OTHER INSECTS OUT OF BASEMENT.

THE annexed engravings fully illustrate the appearance, purpose and usefulness of these Combination Guards and Screens. As the name implies, they serve as a **Guard** to the windows by protecting the glass therein from being broken by stones and other objects thrown thereat, and as a **Screen** from the fact that the entire frame is covered with wire-cloth. The frame is of wood and the heavy wire-guard and screen-cloth securely fastened thereto and their edges covered by a suitable moulding.

We formerly furnished these Guards and Screens with an iron frame, which however were not fly-proof, acting principally as a guard only. The Combination Guards and Screens, as we now make them, are absolutely fly-proof, are neat in appearance, easily fitted, handled and taken care of. The wooden frame will be painted any color to suit; the heavy wire-guard, when not otherwise specially ordered, is painted black, and the screen-cloth is our 14-mesh Black. Bronze and other fancy metal wire-cloths cost extra. If you want a lasting Screen, that will not soon rust out, use Bronze or other fancy metal wire-cloth instead of Black.

Directions for Fitting, Etc.

The proper place for fitting these Screens is between the outside casings, as shown in Fig. 1. Where there are no casings, the Screen is to be fitted between jambs, as shown in Fig. 2; in this case we furnish the necessary stop. If you desire storm sash on your cellar windows, place the Screen per Fig. 1, and the storm sash per Fig. 2, when Screen will act as a Guard for both storm sash and regular sash. Hold Screen in place by wire Hooks and Eyes on the inside of Screen. One or two of the screens may be hinged, so that they can be easily opened for the purpose of admitting coal. Fit them between outside casings, using a pair of Loose-Joint Butts on one end and a Hook and Eye on the other, hooking same on inside. The proper Butts, Hooks and Eyes are illustrated elsewhere in this Catalogue.

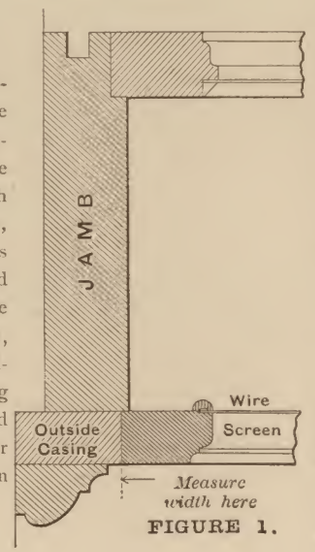


FIGURE 1.

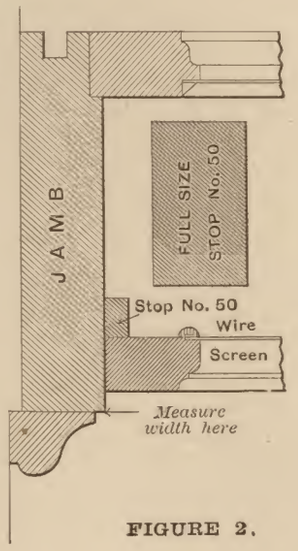
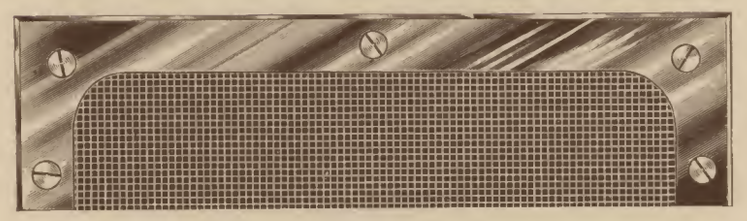


FIGURE 2.

WILLER'S SCREEN WATER DRAIN.

FOR OUTSIDE STATIONARY OR HANGING SCREENS.

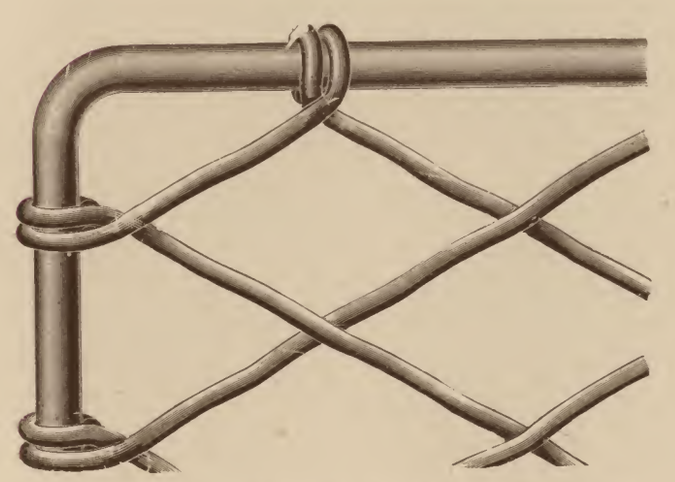


Full Size Cut of Water Drain.



Position of Water Drain on Outside of Screen.

THIS Water Drain is secured on the outside face of the bottom rail of the window screen, after the Screen has been fitted. It enables the water, that usually collects at the window-sill during a heavy shower or rain, to flow off without opening the Screen. The plate is of sheet bronze and the wire of Bronze Screen Cloth. Where we supply this Water Drain, we cut the necessary hole in the bottom-rail of the Screen and cover it with paint. The order must state whether the Screen sets on **top** of or **against** the sill. In the latter case, the height or thickness of the sill must be given, so that we can cut the hole high enough on the inside to enable the water to flow off from the sill and through the hole in the Screen. See Diagrams Figs. 24 and 25, page 241.



Cut showing Full Size of Mesh, Thickness of Wire and Outer Iron Frame.

PLAIN WIRE GUARDS.

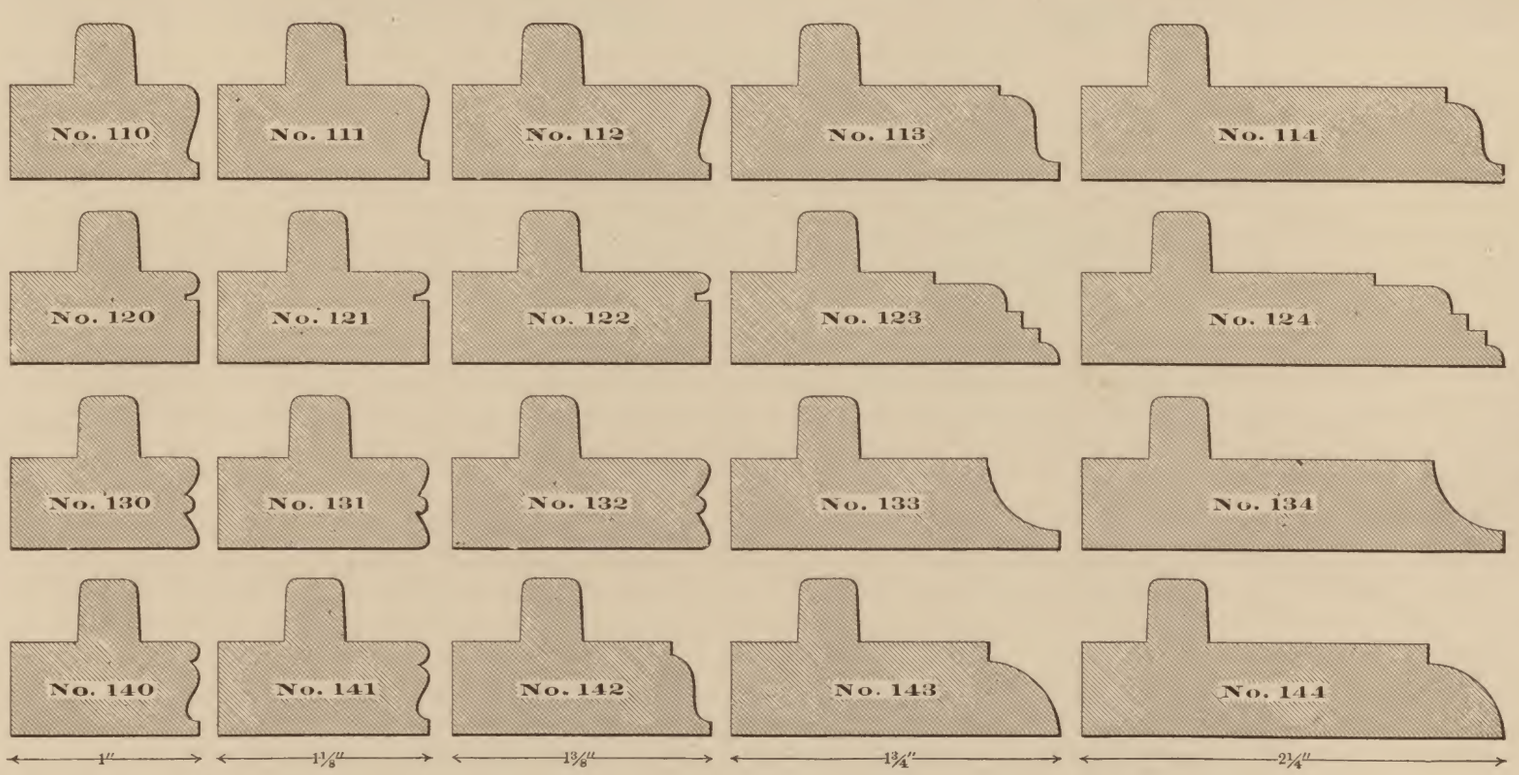
WE also furnish these for cellar and other windows, where only a simple Guard as a protection to the glass is wanted. As shown in the engraving, these have an iron frame to which the heavy wire meshes are attached. The frames are fastened to the windows by means of common staples, which we furnish. The Guards are painted black, brown or green, as may be ordered, and certain parts are embellished with bronze stripings or ornamentations. When ordering, give the exact width and height of the Guard, as wanted.

WILLER'S COMBINATION

WINDOW-STOPS AND SCREEN SLIDE-STRIPS.

FOR WILLER'S STANDARD INSIDE SLIDING WINDOW SCREEN.

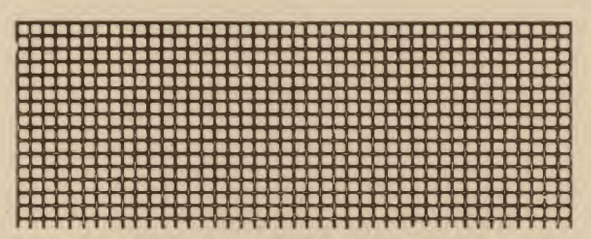
PATENT APPLIED FOR.



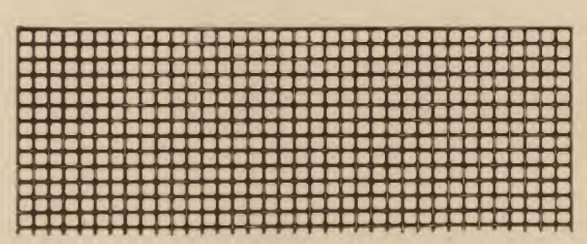
These Combination Strips are not included in published prices of Screens. Prices vary according to quantity required, and will be furnished upon application.

Where persons prefer the use of an **Inside** Sliding Screen to that of an **Outside** one, they should provide their windows with one of the above Combination Stops instead of the ordinary window-stop. They cost no more than the ordinary stops and there is no harm done to the windows even though no screens are afterwards used thereon. It is better to use one of these Combination Stops than to use the ordinary flat stop and planting thereon the usual No. 1 Screen Slide-Strip. The two side-pieces have the tongue stuck thereon as shown by the above illustrations, whereas the top-strip is furnished flat without the tongue thereon. We furnish these stops in any way desired, in full lengths or cut to sizes, finished or unfinished. When ordering these, especially in large quantities, mention the number of feet of side-pieces and head-pieces separately.

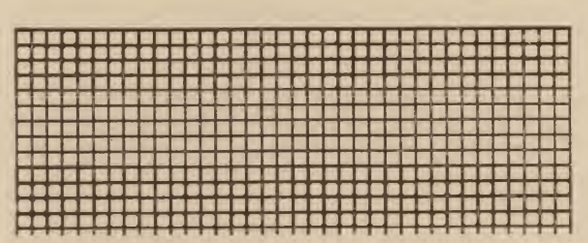
WIRE CLOTH.



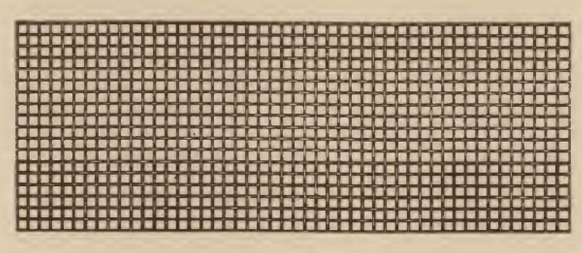
14-mesh Black Painted and 14-mesh Silver-Grey.



12-mesh Black Painted, Twilled.



12-mesh Silver-Grey, Heavy.



16-mesh Bronze.

IN the matter of Wire Cloth, it has always been our aim to purchase only the best that can be had in the market. Years ago, when American manufacturers produced only the common green cloth, we were one of the few manufacturing firms, if not the only one, that procured its supply of fine grades of wire cloth for its custom trade direct from Saalfeld, in Thueringen, Germany. Since then these goods are just as perfectly and at less cost produced in this country. We usually place our contracts for a season's supply in advance, and in doing so, the quality and the finish of the goods offered, as well as the uniformity and evenness of the weaving, are more important points with us in deciding whose goods we will buy than the price. We guarantee that no other manufacturer, however pretentious in his announcements, carries any better goods and assortment of stock than we do. Our stock may vary a little with each succeeding season, and in such case due announcement will be made. The following, however, are our standard styles, and can be supplied by us at almost any time:

Black Painted Wire Cloth, 14-Mesh.—This cloth is made of steel wire, 14 meshes to one inch, is very evenly woven and covered by a jet black enamel coating. We use this on all of our Window Screens and Screen Doors, where no other wire is specially called for. All our published prices and quotations, unless otherwise distinctly stated, are based upon the use of this cloth. When ordering, simply designate this as **Black Cloth.**

Black Painted Heavy Twilled Wire Cloth, 12-Mesh.— This is the same cloth as the foregoing, except that it is made of heavier steel wire and woven 12 meshes to one inch. It is especially desirable for use on doors and cellar windows, where there is more of a possibility of the wire being pushed out than in other windows. When ordering, simply designate this as **Black Twilled Cloth.**

Silver-Grey Wire Cloth, 14-Mesh.—This cloth presents at first a lustrous appearance, similar to silver, which will, after exposure to the atmosphere, turn to a handsome shade of gray, rendering it almost invisible. Even at the extra cost, it is cheaper, considering its advantages, than painted cloth, as the trouble and expense of frequent repainting or renewing the wire is avoided. Do not confound this cloth with the ordinary galvanized cloth, which, although cheaper, is dull in appearance and will soon rust out. When ordering, simply designate this as **Silver-Grey Cloth.**

Silver-Grey Heavy Wire Cloth, 12-Mesh —This is the same as the above, except that it is made of heavier wire and woven 12 meshes to the inch. It is especially desirable for use on doors and cellar windows, where there is more of a possibility of the wire being pushed out. When ordering, simply designate this as **Silver-Grey Heavy Cloth.**

Bronze Wire Cloth.—This is the best grade of Wire Cloth on the market for use on good Window Screens and Screen Doors. It is woven of wire composed of an alloy of copper, tin, aluminum and such other metals as are known to withstand the action of the weather. It will not rust or deteriorate, even when exposed to the salt atmosphere of the ocean; requires no paint or lacquer and is practically indestructible. Some manufacturers make this of a dark statuary bronze color, while others make it of a light bronze or gold color. The latter is a little stiffer in texture than the former, and after a short exposure in the atmosphere will also turn to a dark color, making it practically invisible. We have heretofore furnished both colors, 14 meshes to one inch, but may change this also to 15 or 16 meshes to the inch. We will carry in stock but one color and one grade of mesh for each season, but are liable to change the color, as well as the mesh, with each succeeding season, as experience and the requirements of our trade may dictate to us. All quotations are subject to the stock on hand at time of order, and according to the sample we may submit, or the special announcement we may make at such time. When ordering, simply designate this as **Bronze Cloth.**

SAMPLES OF ANY OR ALL OF THE ABOVE WILL BE MAILED FREE UPON APPLICATION.

WILLER'S MADE-TO-ORDER SCREEN DOORS.

WE do not make any stock Screen Doors. We work only for custom trade, and all our Screen Doors are made exactly to size ordered and according to the style and design of door selected. We use only the best grade of lumber in the manufacture of these doors. We make them of any kind of wood, and paint or finish them in any way or color desired. We make these doors of plain as well as fancy design, as shown by the engravings published in this catalogue. All of these designs are our own and have been especially designed by and engraved for us. The Committee on Awards, World's Fair, Chicago, 1893, in their report, distinctly give us an award on Screen Doors for "Variety and Beauty of Design." All the prices that we may publish or quote upon enquiry, unless distinctly otherwise stated, include the finishing or painting and the covering of the door with 14-mesh black painted wire cloth; bronze and other cloths cost extra. On account of the large variety of Hardware for Screen Doors that we handle, these prices do not include any hardware; such hardware will be quoted separately, or, if quoted in connection with doors, our quotations will include a description of the hardware. These remarks pertain only to our own transactions with our agents and the trade, and have no bearing upon contracts entered into between consumers and our selling agents or others.

PLAIN OPEN PANEL SCREEN DOORS.



ON the first two pages of our illustrations of Screen Doors, we publish a variety of designs for Plain Open Panel Screen Doors, such as are mostly in use. These doors have their stiles and rails "stuck on the solid," as shown by the full-size section printed herewith. The edges of the wire-cloth are turned over and covered by a moulding, as shown; this moulding is secured to the door by brass nails, to prevent the appearance of rusty nails. When any of these doors are ordered and no special instructions are given, we use our own judgment in the placing of the rails and the sizes and arrangement of panels. Usually we place the lock-rail so it will measure 2 feet and 9 inches from bottom of door to center of lock-rail. On next page we give full instructions how Plain Open Panel Doors can be made to match house doors.

TRANSOMS FOR SCREEN DOORS.

Where Transoms are ordered in connection with screen doors, they will be made to correspond with the style and design of the screen door, and will be charged for at a price in proportion to that of the screen door, computing the superficial contents of each. Where such Transoms are of circular or segment or other odd shape, the same extra charges are made as those given for odd-shaped outside stationary screens.

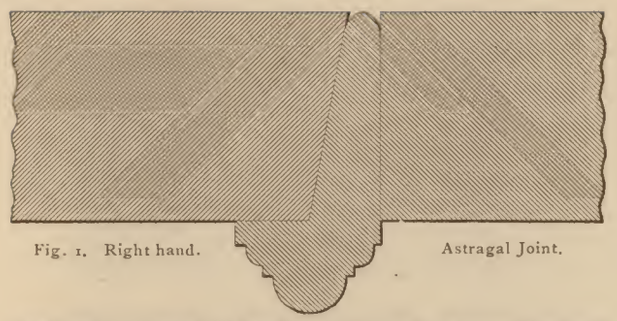


Fig. 1. Right hand. Astragal Joint.

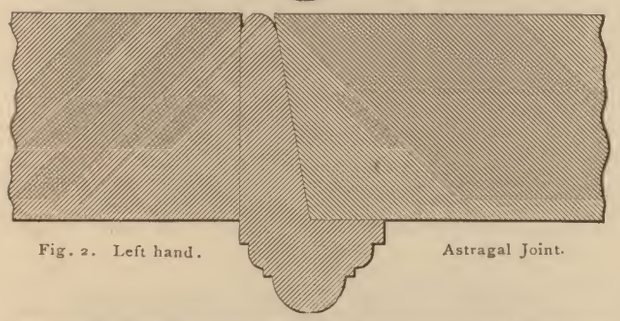


Fig. 2. Left hand. Astragal Joint.

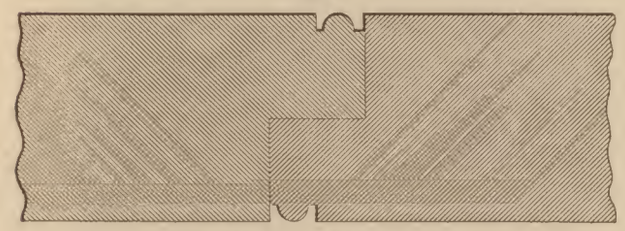


Fig. 3. Right hand Rabbeted Joint.

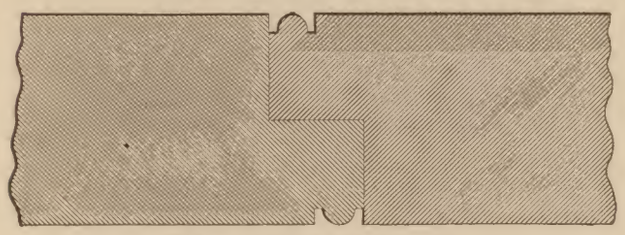


Fig. 4. Left hand Rabbeted Joint.

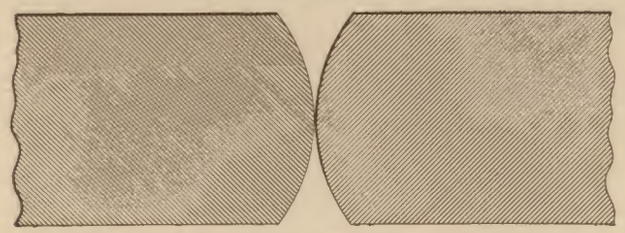


Fig. 5. Segment Joint for Double Swinging Doors.

DOUBLE SCREEN DOORS.

ALL Double Screen Doors or pairs of Doors will be furnished with either Astragal, Rabbeted or Segment Joints in center. The Astragal Joint is our standard, and will be furnished in all cases where not specially ordered otherwise; see Figures 1 and 2. The Segment Joint, Fig. 5, will be furnished for all Double Swinging Doors. Where not otherwise ordered, all Double Door Joints will be made right-hand. We permanently secure the Astragal Moulding to one Door and bevel the edge of the other, and finish the center joints of all Double Doors. All Double Doors are charged for at double the price of Single Doors, and $1.00 extra for the making and finishing of center joints.

PLAIN OPEN PANEL SCREEN DOORS.

OF OTHER DESIGN THAN PUBLISHED HEREIN.

PLAIN Open-Panel Screen Doors can be made to match any kind of house door, no mattter how fancy it may be or what arrangement of panels it may have. It is not necessary that the stiles and rails in the Screen Door are made of the same width as those in the house door, as this would make the Screen Door too heavy and awkward in appearance. It is only **necessary** that the **center** of the lock-rail and the other upper and cross-rails in the Screen Door come directly opposite those in the house door.

We print herewith an illustration of a house door and an illustration of a screen door to match. Where less wood-work is desired in the screen door, the 6 small panels may be omitted. In all such cases we must be furnished with a sketch of the **Screen Door,** as wanted, with exact measurements marked thereon, as shown.

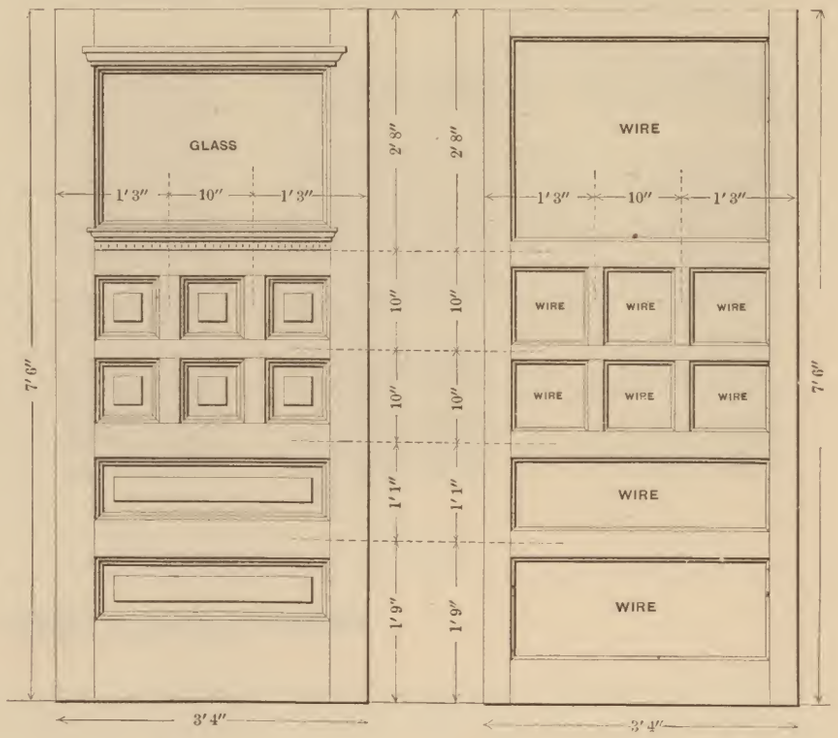
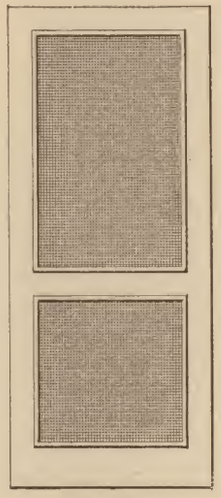
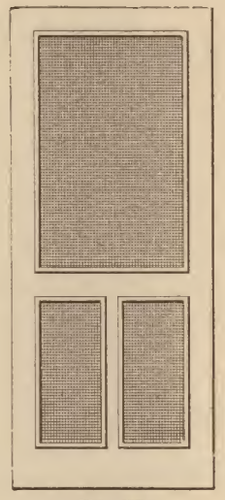


Fig. 1. Fig. 2.

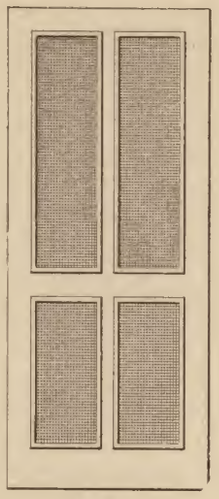
Illustration of House Door with Screen Door to match.



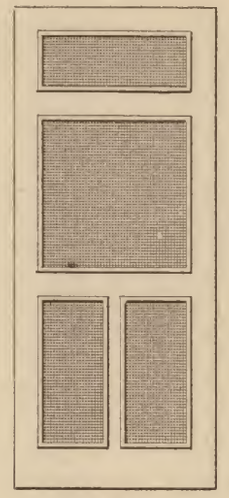
No. 29.
2-Panel Door.



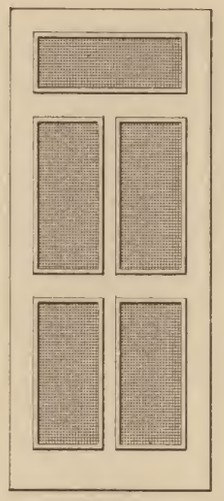
No. 30.
3-Panel Door.



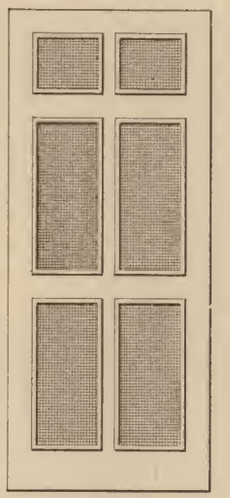
No. 31.
4-Panel Door.



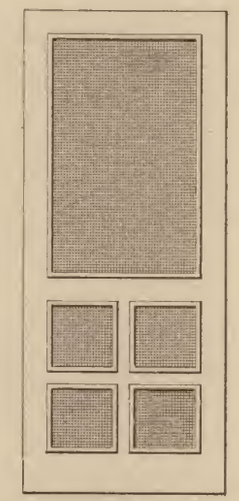
No. 32.
4-Panel Door.



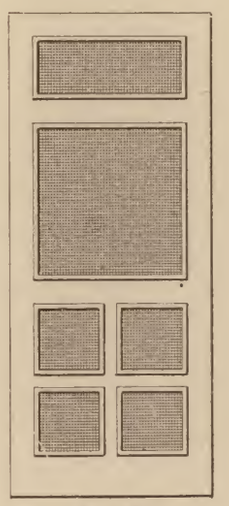
No. 33.
5-Panel Door.



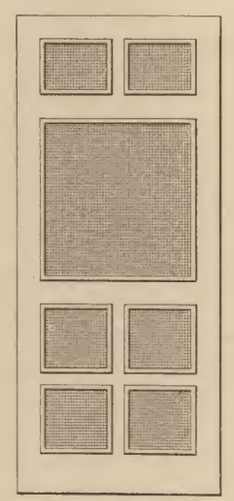
No. 34.
6-Panel Door.



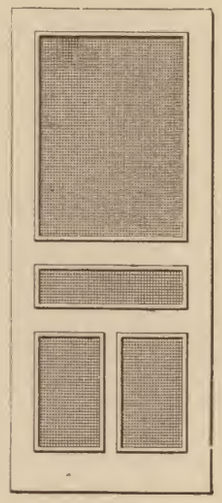
No. 35.
5-Panel Door.



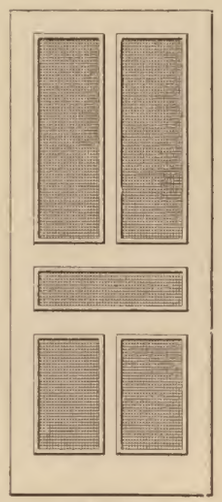
No. 36.
6-Panel Door.



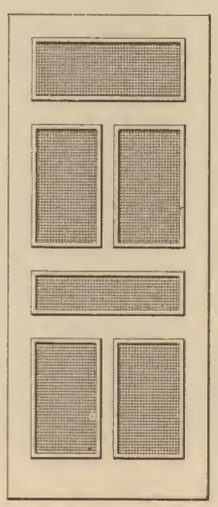
No. 36½.
7-Panel Door.



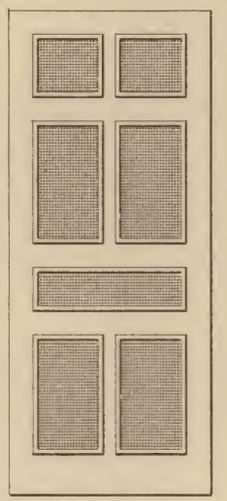
No. 37.
4-Panel Door.



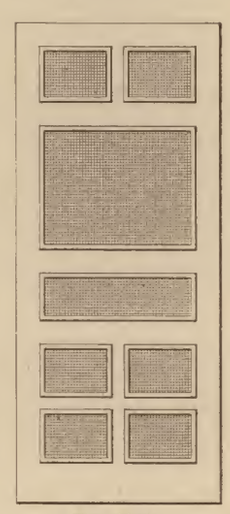
No. 38.
5-Panel Door.



No. 39.
6-Panel Door.



No. 40.
7-Panel Door.



No. 40½.
8-Panel Door.

Willer's Plain Open Panel Made-to-order Screen Doors.

Prices for Screen Doors vary according to size and kind of wood and finish.

All Single Doors up to 3.0 x 7.1, are one price; for each additional 2 inches or fraction thereof in width, and for each additional 6 inches or fraction thereof in height, a certain extra charge is made.

The standard thickness is 1⅛ inch. Doors 1⅜ and 1¾ inches thick, cost extra.

The price for a Plain Open-Panel Door, with a different arrangement of panels than above shown, is the same as for a door showing the same number of open panels.

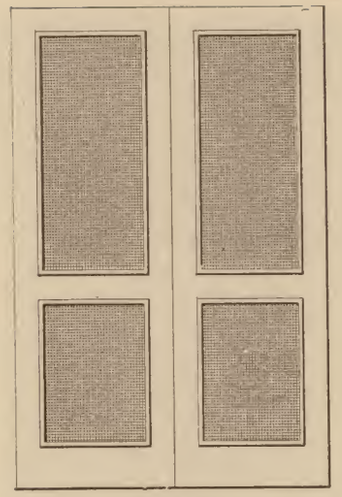
All Pine Doors are finished natural, stained or painted any color to suit, and varnished. All Hardwood Doors are filled and varnished.

All prices include the covering of the Doors with 14-mesh Black Painted Wire-cloth, unless otherwise stated.

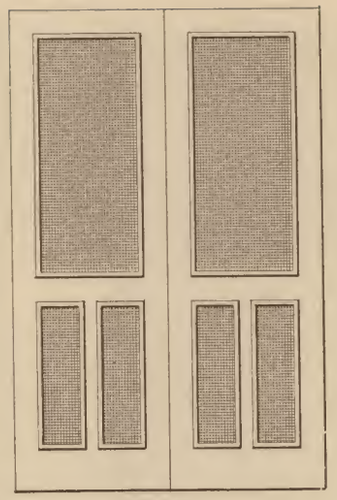
Prices given for Pine, etc., are the same for White Pine, Hard or Norway Pine, Poplar, Linden (Basswood) and Cypress.

Prices given for Oak, etc., are the same for Plain-sawed White or Red Oak, Ash, Butternut, Maple, Chestnut, Birch, Gum and California Red Wood.

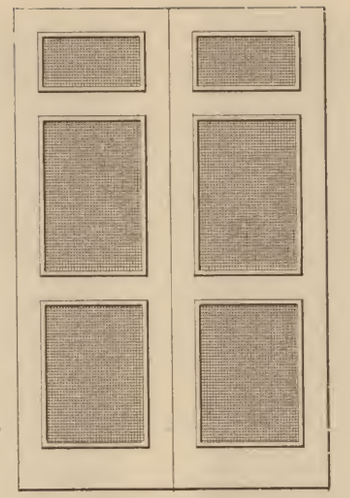
Prices given for Cherry, etc., are the same for Cherry, Walnut, Quarter-sawed Red and White Oak, Quarter-sawed Sycamore and Curly Southern Pine.



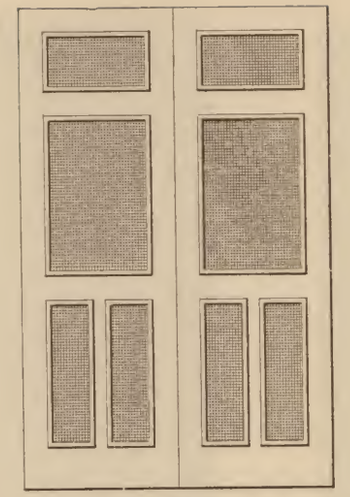
No. 41.
4-Panel Doors.



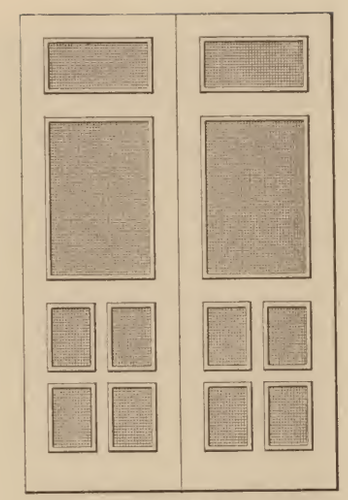
No. 42.
6-Panel Doors.



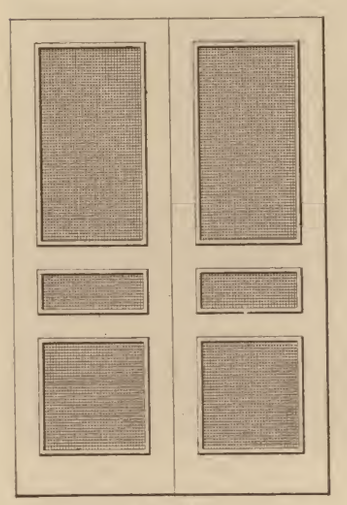
No. 43.
6-Panel Doors.



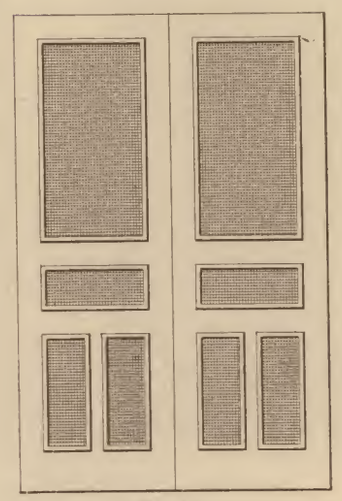
No. 44.
8-Panel Doors.



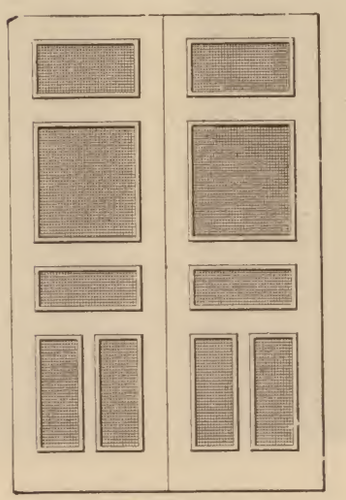
No. 44½.
12-Panel Doors.



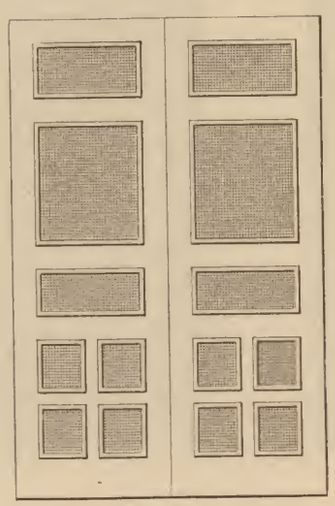
No 45.
6-Panel Doors.



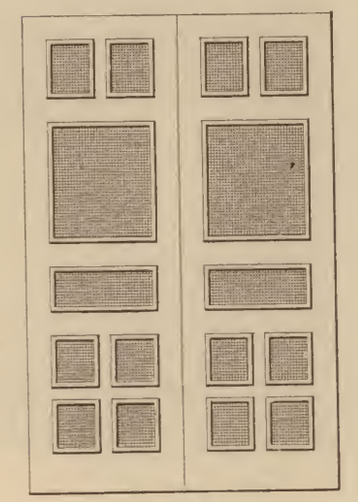
No. 46.
8-Panel Doors.



No. 47.
10-Panel Doors.



No. 47½.
14-Panel Doors.



No. 48.
16-Panel Doors.

Willer's Plain Open Panel Made-to-order Screen Doors.

Prices for Screen Doors vary according to size and kind of wood and finish. All Double Doors up to 6.0 x 7.1, are one price; for each additional 4 inches or fraction thereof in width, and for each additional 6 inches or fraction thereof in height, a certain extra charge is made.

The standard thickness is 1⅛ inch. Doors 1⅜ and 1¾ inches thick, cost extra.

The price for a pair of Plain Open-Panel Doors with a different arrangement of panels than above shown, is the same as for a pair of doors showing the same number of open panels.

All Pine Doors are finished natural, stained or painted any color to suit, and varnished. All Hardwood Doors are filled and varnished.

All prices include the covering of the Doors with 14-mesh Black Painted Wire-cloth, unless otherwise stated.

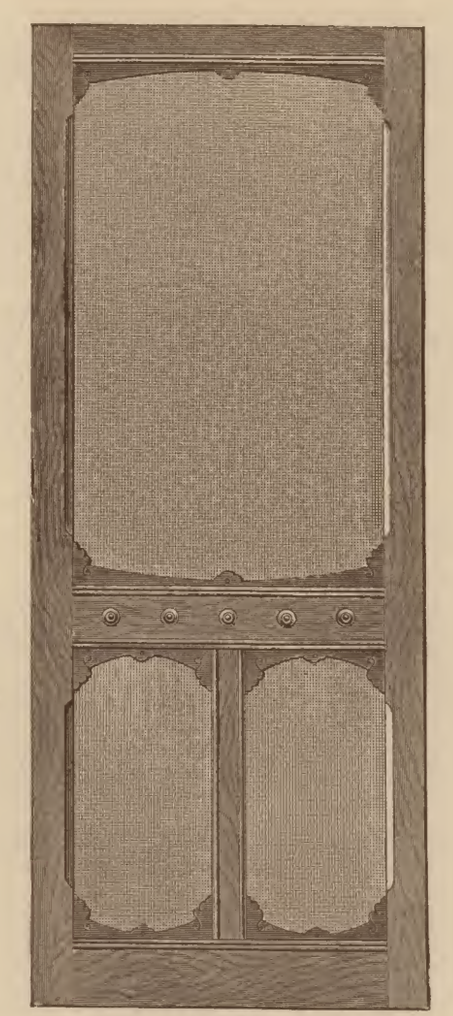
Prices given for Pine, etc., are the same for White Pine, Hard or Norway Pine, Poplar, Linden (Basswood) and Cypress.

Prices given for Oak, etc., are the same for Plain-sawed White or Red Oak, Ash, Butternut, Maple, Chestnut, Birch, Gum and California Red Wood.

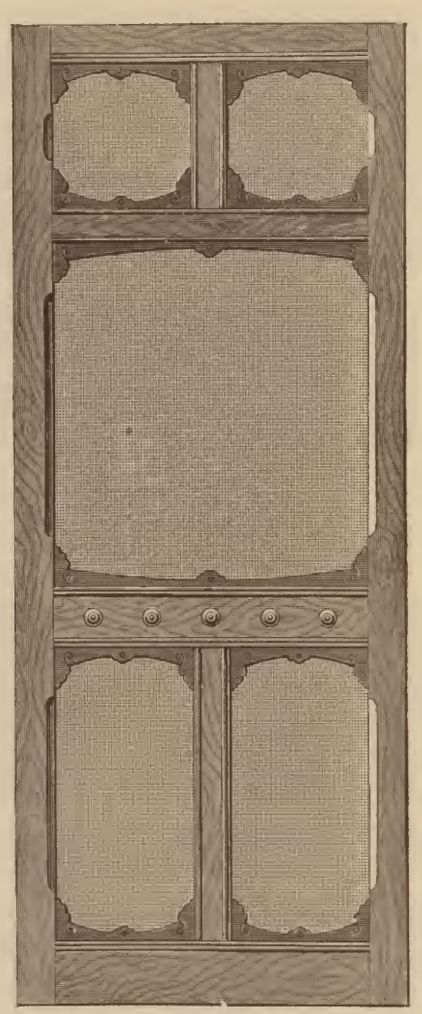
Prices given for Cherry, etc., are the same for Cherry, Walnut, Quarter-sawed Red and White Oak, Quarter-sawed Sycamore and Curly Southern Pine.



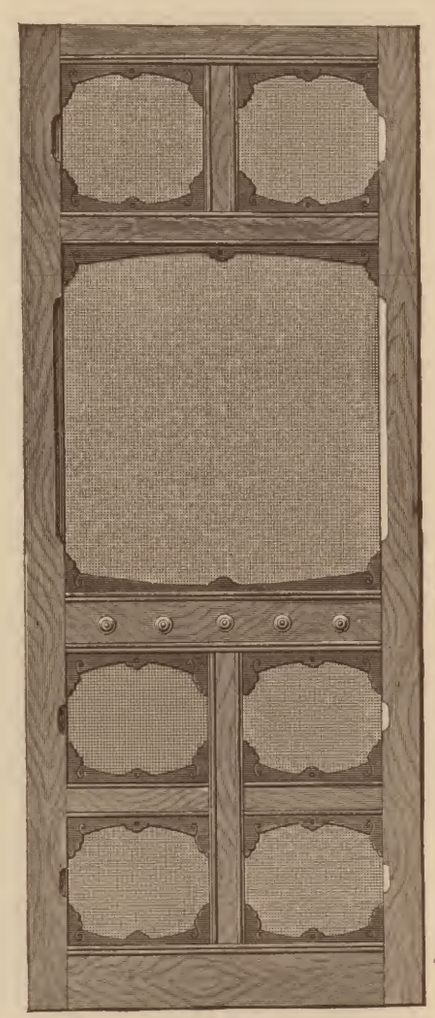
No. 60.



No. 61.



No. 62.



No. 63.

Willer's Ornamental Made-to-order Screen Doors.

Prices for Screen Doors vary according to size and kind of wood and finish.

All Single Doors up to 3.0 x 7.1, are one price; for each additional 2 inches or fraction thereot in width, and for each additional 6 inches or fraction thereof in height, a certain extra charge is made.

All Double Doors are charged for at double the price of single doors, and $1.00 extra for the making and finishing of the centre-joints.

The standard thickness is 1⅛ inch. Doors 1⅜ and 1¾ inch thick, cost extra.

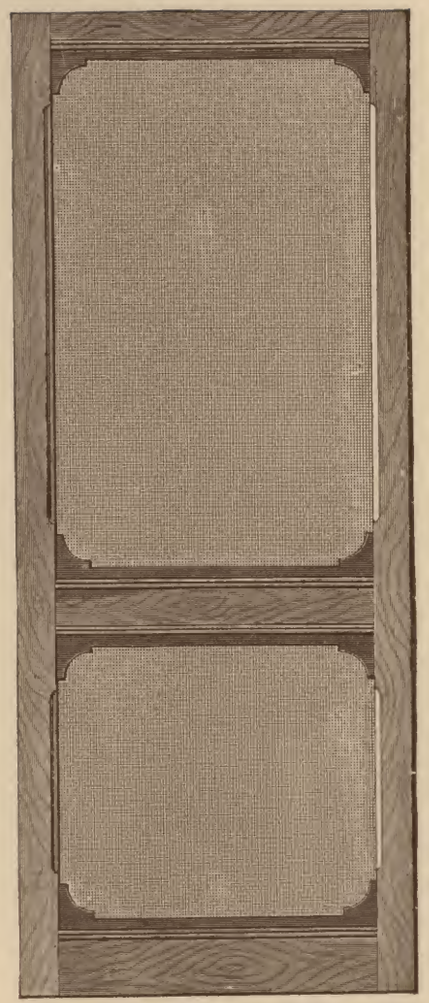
All Pine Doors are finished natural, stained or painted any color to suit, and varnished. All Hardwood Doors are filled and varnished.

All prices include the covering of the Doors with 14-mesh Black Painted Wire-cloth, unless otherwise stated.

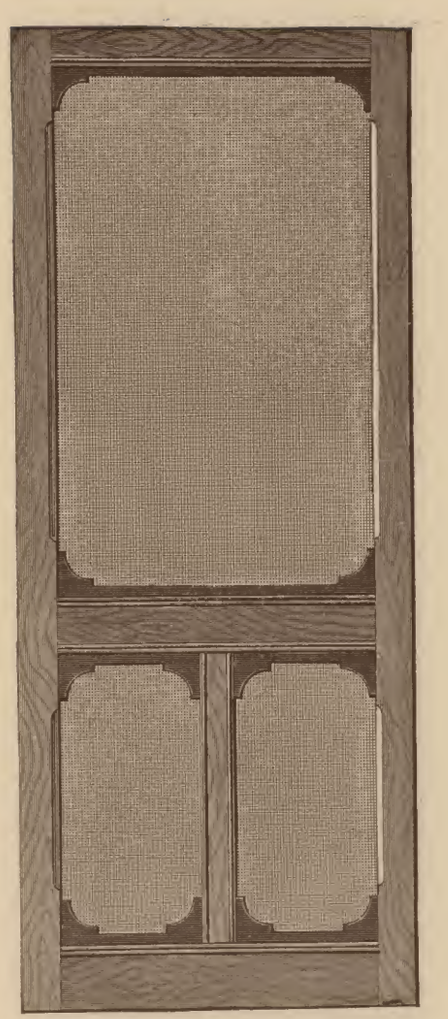
Prices given for Pine, etc., are the same for White Pine, Hard or Norway Pine, Poplar, Linden (Basswood) and Cypress.

Prices given for Oak, etc., are the same for Plain-sawed White or Red Oak, Ash, Butternut, Maple, Chestnut, Birch, Gum and California Red Wood.

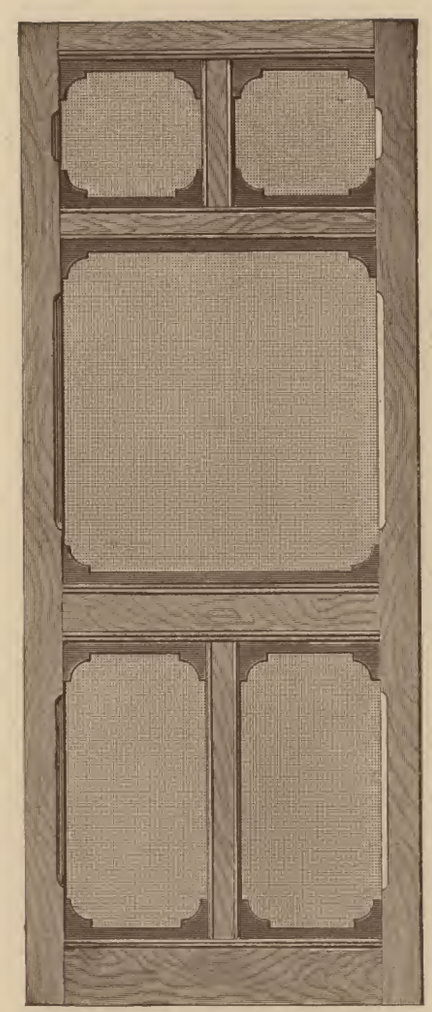
Prices given for Cherry, etc., are the same for Cherry, Walnut, Quarter-sawed Red and White Oak, Quarter-sawed Sycamore and Curly Southern Pine.



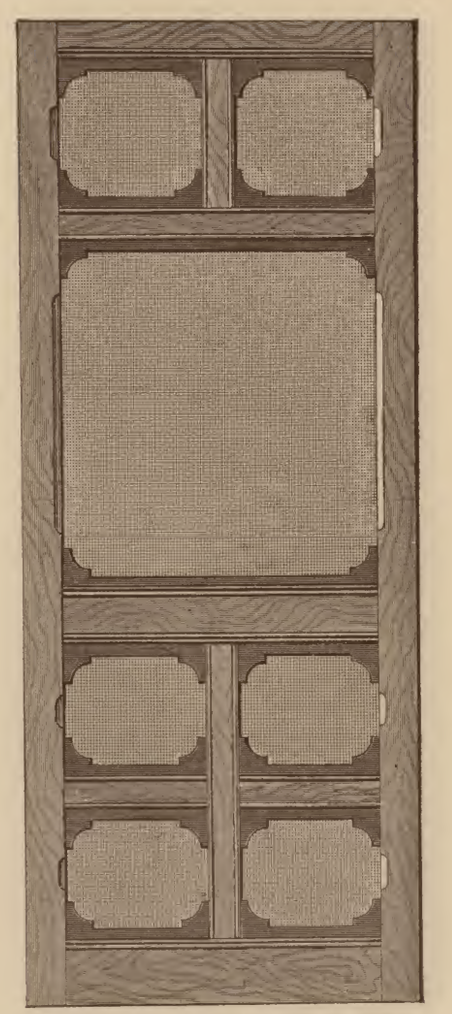
No. 70.



No. 71.



No. 72.



No. 73.

Willer's Ornamental Made-to-order Screen Doors.

Prices for Screen Doors vary according to size and kind of wood and finish.

All Single Doors up to 3.0 x 7.1, are one price; for each additional 2 inches or fraction thereof in width, and for each additional 6 inches or fraction thereof in height, a certain extra charge is made.

All Double Doors are charged for at double the price of single doors, and $1.00 extra for the making and finishing of the centre-joints.

The standard thickness is 1⅛ inch. Doors 1⅜ and 1¾ inch thick, cost extra.

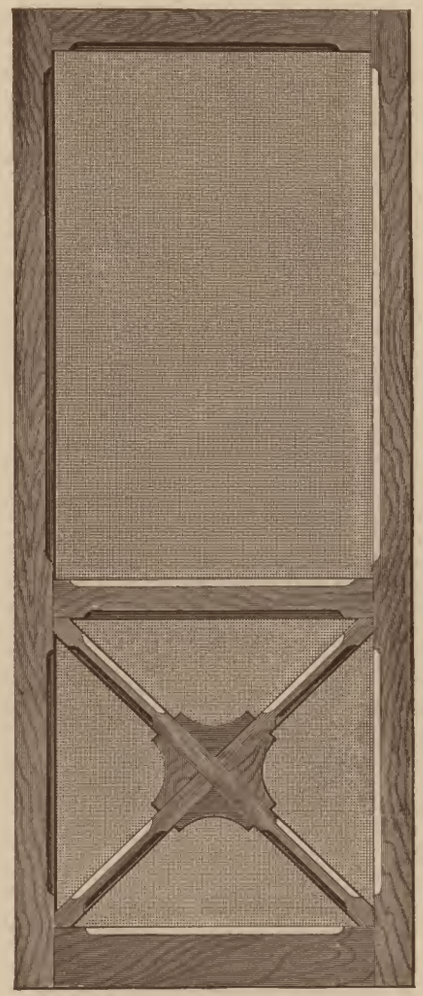
All Pine Doors are finished natural, stained or painted any color to suit, and varnished. All Hardwood Doors are filled and varnished.

All prices include the covering of the Doors with 14-mesh Black Painted Wire-cloth, unless otherwise stated.

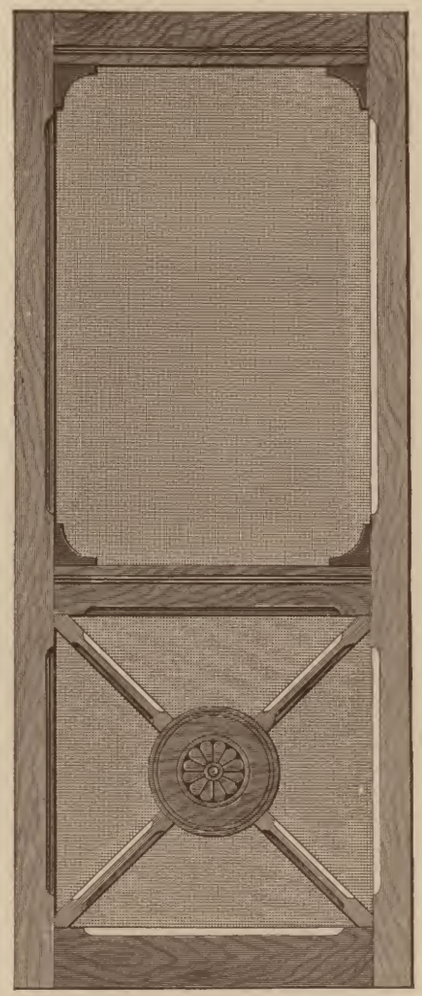
Prices given for Pine, etc., are the same for White Pine, Hard or Norway Pine, Poplar, Linden (Basswood) and Cypress.

Prices given for Oak, etc., are the same for Plain-sawed White or Red Oak, Ash, Butternut, Maple, Chestnut, Birch, Gum and California Red Wood.

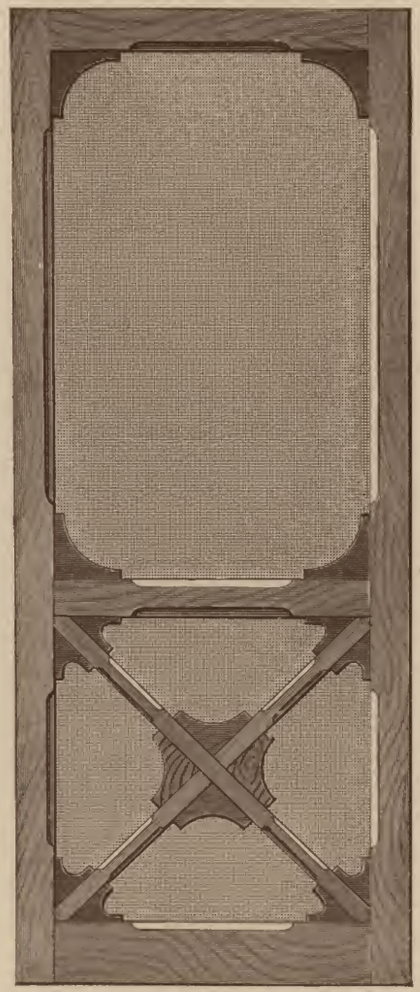
Prices given for Cherry, etc., are the same for Cherry, Walnut, Quarter-sawed Red and White Oak, Quarter-sawed Sycamore and Curly Southern Pine.



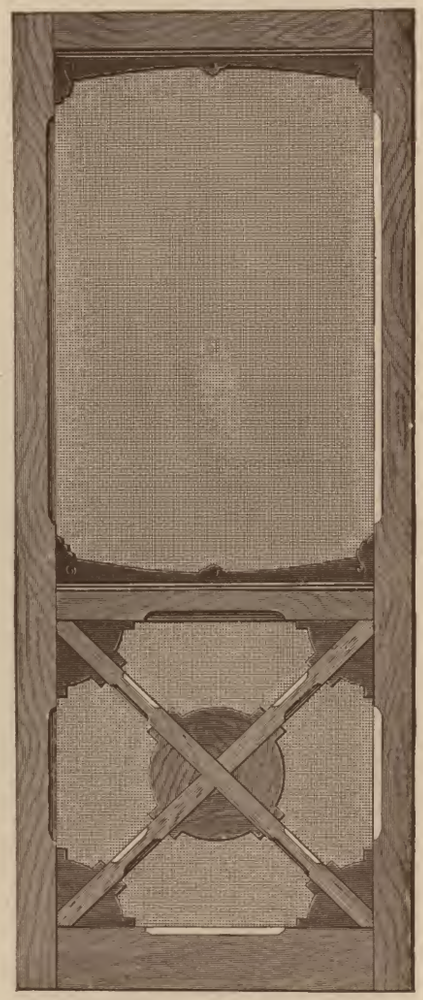
No. 80.



No. 81.



No. 82.



No. 83.

Willer's Ornamental Made-to-order Screen Doors.

Prices for Screen Doors vary according to size and kind of wood and finish.

All Single Doors up to 3.0 x 7.1, are one price; for each additional 2 inches or fraction thereof in width, and for each additional 6 inches or fraction thereof in height, a certain extra charge is made.

All Double Doors are charged for at double the price of single doors, and $1.00 extra for the making and finishing of the centre-joints.

The standard thickness is 1⅛ inch. Doors 1⅜ and 1¾ inch thick, cost extra.

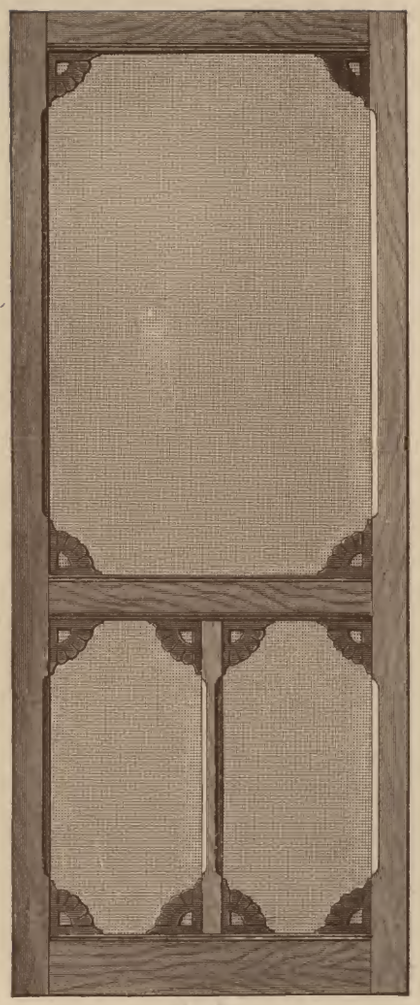
All Pine Doors are finished natural, stained or painted any color to suit, and varnished. All Hardwood Doors are filled and varnished.

All prices include the covering of the Doors with 14-mesh Black Painted Wire-cloth, unless otherwise stated.

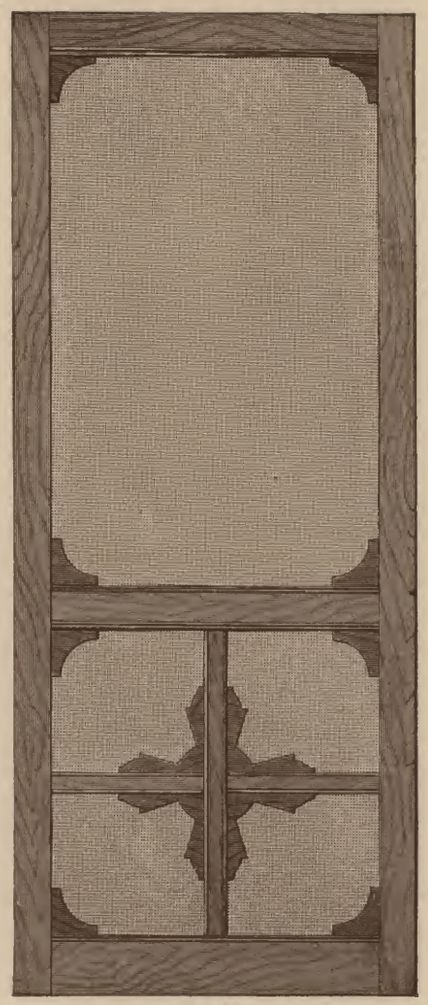
Prices given for Pine, etc., are the same for White Pine, Hard or Norway Pine, Poplar, Linden (Basswood) and Cypress.

Prices given for Oak, etc., are the same for Plain-sawed White or Red Oak, Ash, Butternut, Maple, Chestnut, Birch, Gum and California Red Wood.

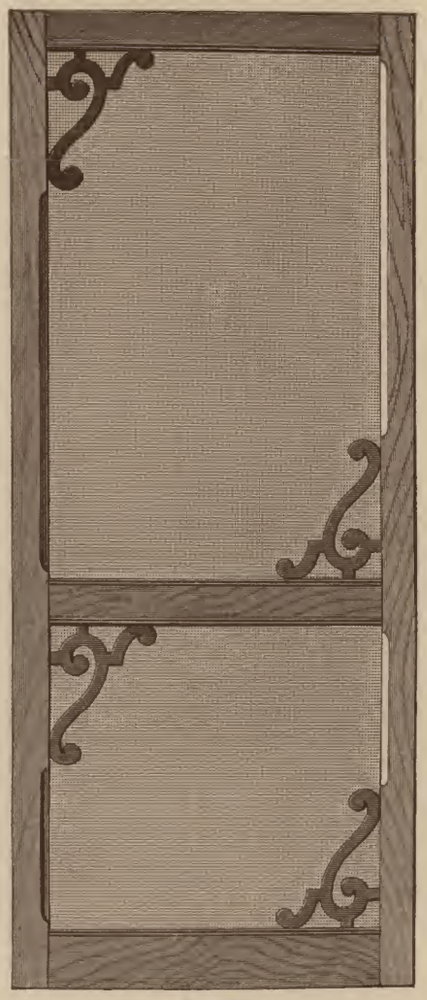
Prices given for Cherry, etc., are the same for Cherry, Walnut, Quarter-sawed Red and White Oak, Quarter-sawed Sycamore and Curly Southern Pine.



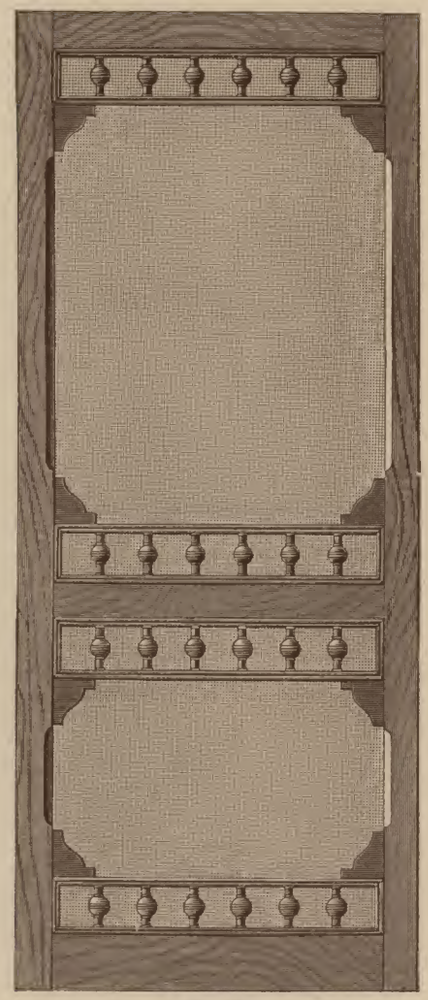
No. 84.



No. 85.



No. 86.



No. 87.

Willer's Ornamental Made=to=order Screen Doors.

Prices for Screen Doors vary according to size and kind of wood and finish.

All Single Doors up to 3.0 x 7.1, are one price; for each additional 2 inches or fraction thereof in width, and for each additional 6 inches or fraction thereof in height, a certain extra charge is made.

All Double Doors are charged for at double the price of single doors, and $1.00 extra for the making and finishing of the centre-joints.

The standard thickness is 1⅛ inch. Doors 1⅜ and 1¾ inch thick, cost extra.

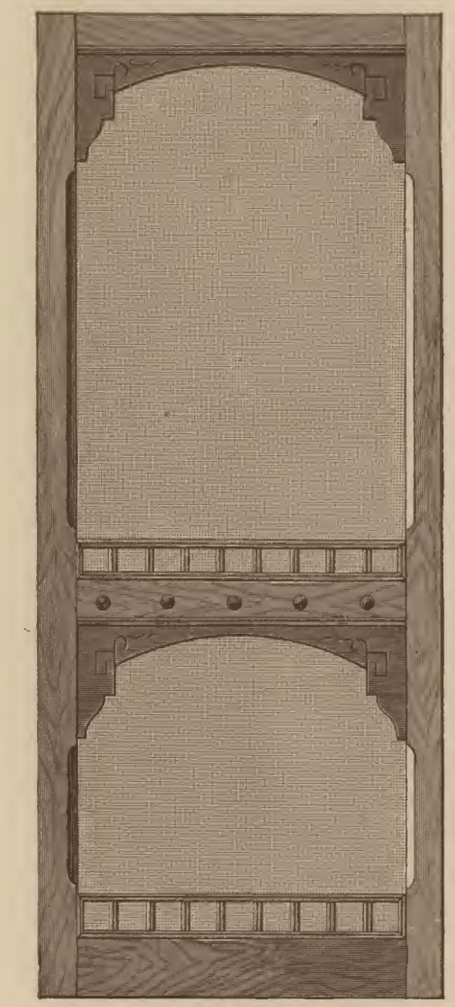
All Pine Doors are finished natural, stained or painted any color to suit, and varnished. All Hardwood Doors are filled and varnished.

All prices include the covering of the Doors with 14-mesh Black Painted Wire-cloth, unless otherwise stated.

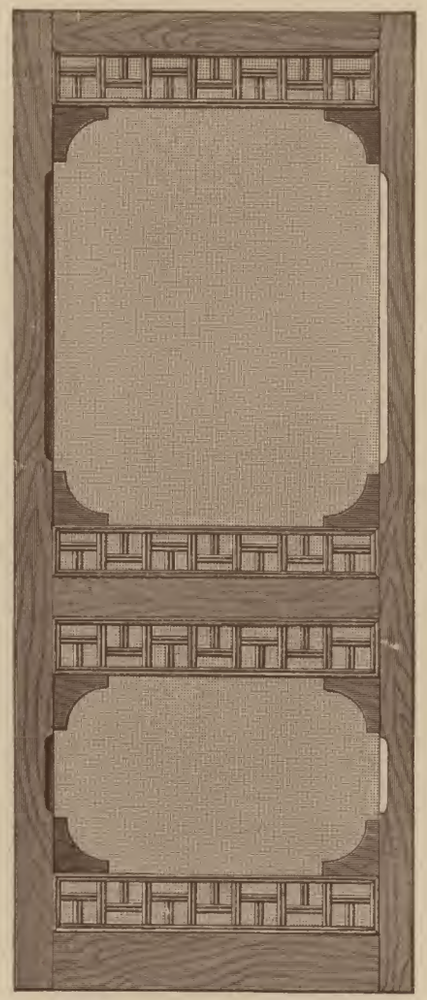
Prices given for Pine, etc., are the same for White Pine, Hard or Norway Pine, Poplar, Linden (Basswood) and Cypress.

Prices given for Oak, etc., are the same for Plain-sawed White or Red Oak, Ash, Butternut, Maple, Chestnut, Birch, Gum and California Red Wood.

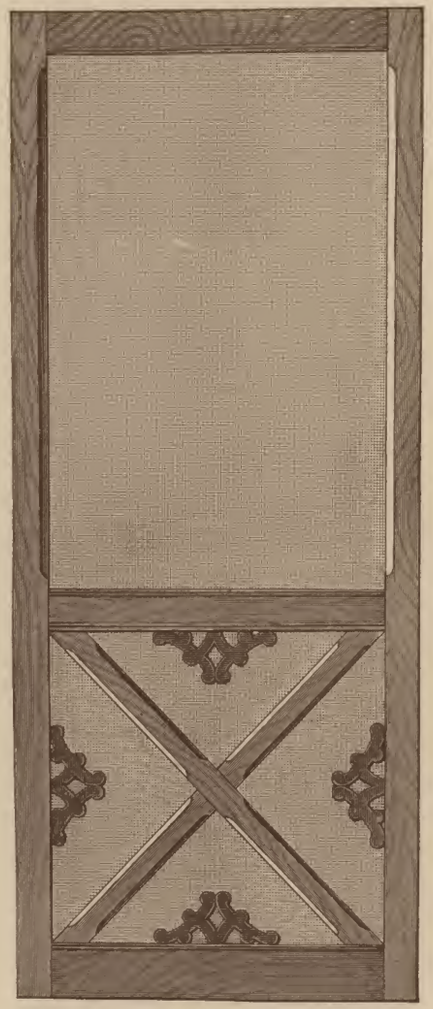
Prices given for Cherry, etc., are the same for Cherry, Walnut, Quarter-sawed Red and White Oak, Quarter-sawed Sycamore and Curly Southern Pine.



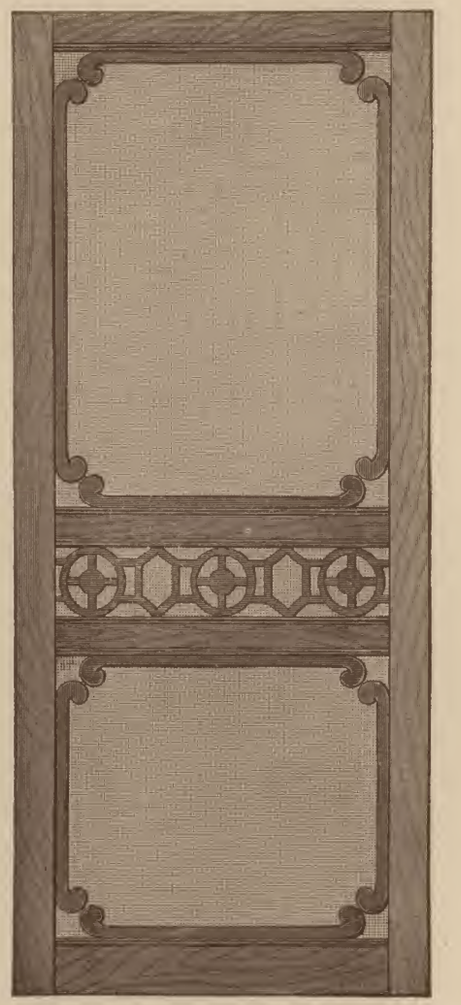
No. 88.



No. 89.



No. 90.



No. 92.

Willer's Ornamental Made-to-order Screen Doors.

Prices for Screen Doors vary according to size and kind of wood and finish.

All Single Doors up to 3.0 x 7.1, are one price; for each additional 2 inches or fraction thereof in width, and for each additional 6 inches or fraction thereof in height, a certain extra charge is made.

All Double Doors are charged for at double the price of single doors, and $1.00 extra for the making and finishing of the centre-joints.

The standard thickness is 1⅛ inch. Doors 1⅜ and 1¾ inch thick, cost extra.

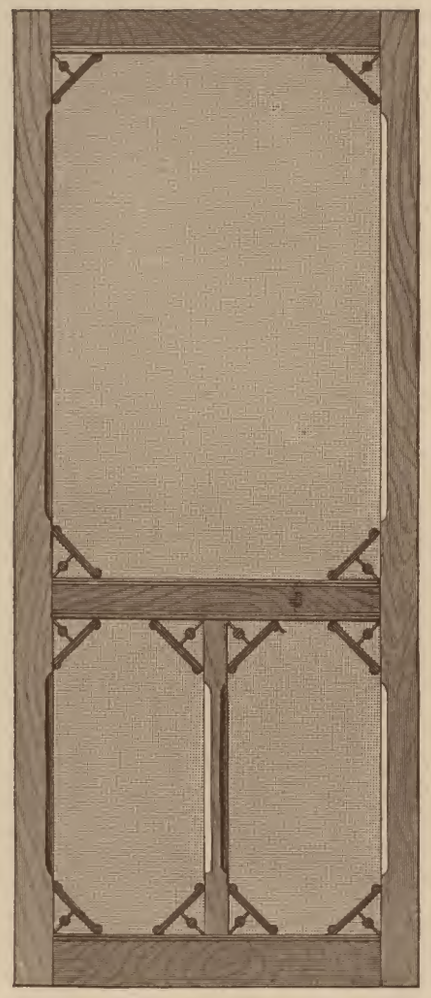
All Pine Doors are finished natural, stained or painted any color to suit, and varnished. All Hardwood Doors are filled and varnished.

All prices include the covering of the Doors with 14-mesh Black Painted Wire-cloth, unless otherwise stated.

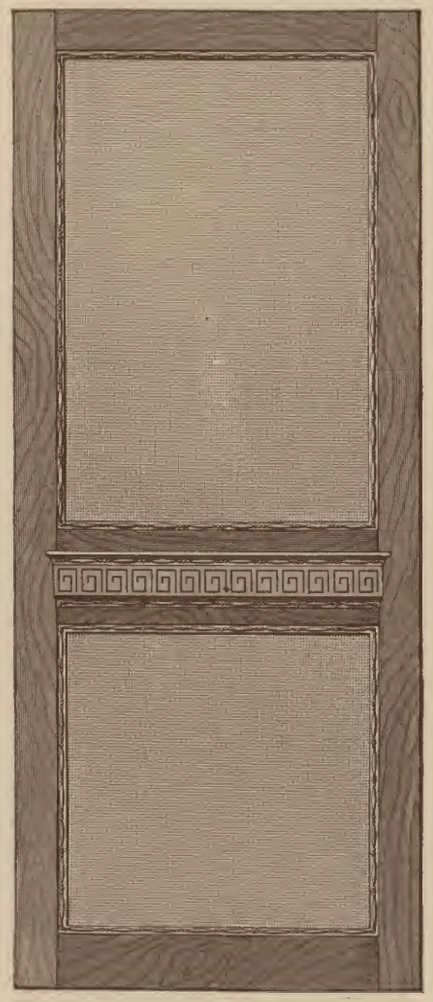
Prices given for Pine, etc., are the same for White Pine, Hard or Norway Pine, Poplar, Linden (Basswood) and Cypress.

Prices given for Oak, etc., are the same for Plain-sawed White or Red Oak, Ash, Butternut, Maple, Chestnut, Birch, Gum, and California Red Wood.

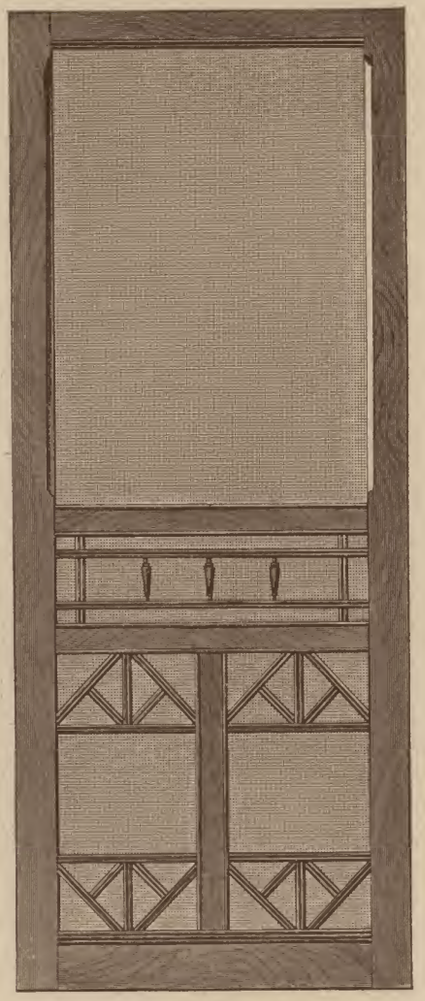
Prices given for Cherry, etc., are the same for Cherry, Walnut, Quarter-sawed Red and White Oak, Quarter-sawed Sycamore and Curly Southern Pine.



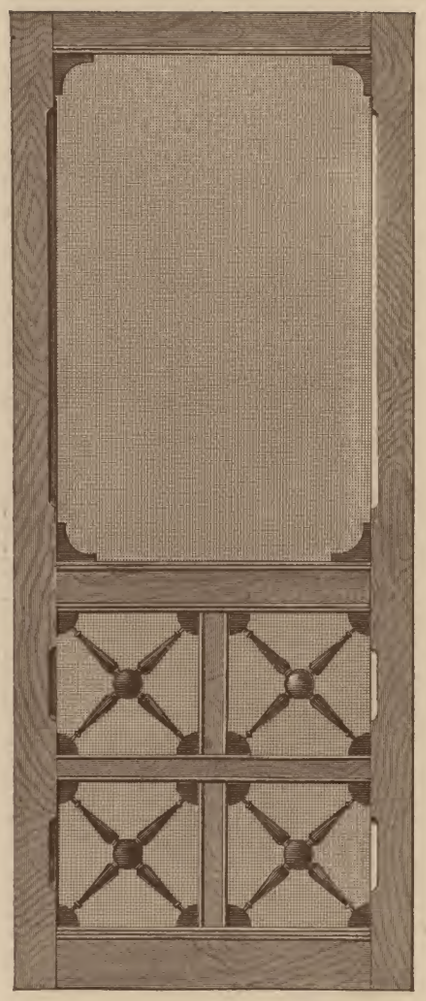
No. 93.



No. 95.



No. 96.



No. 97.

Willer's Ornamental Made=to=order Screen Doors.

Prices for Screen Doors vary according to size and kind of wood and finish.

All Single Doors up to 3.0 x 7.1, are one price; for each additional 2 inches or fraction thereof in width, and for each additional 6 inches or fraction thereof in height, a certain extra charge is made.

All Double Doors are charged for at double the price of single doors, and $1.00 extra for the making and finishing of the centre-joints.

The standard thickness is 1⅛ inch. Doors 1⅜ and 1¾ inch thick, cost extra.

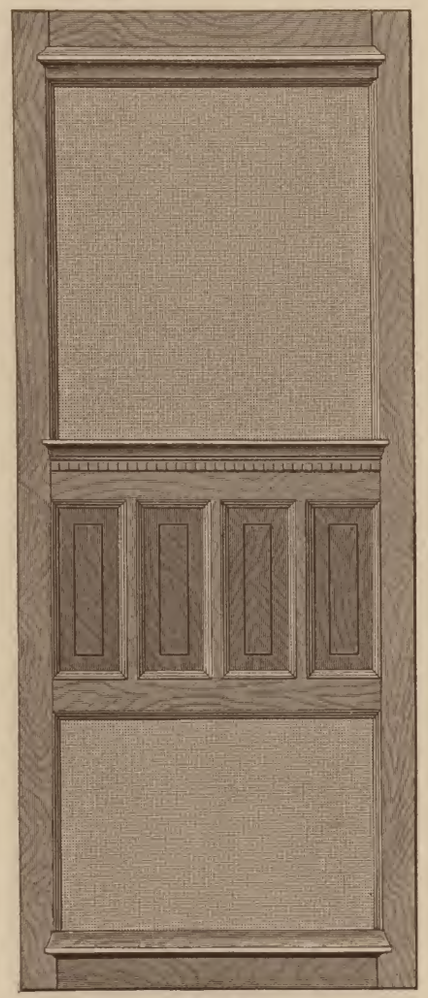
All Pine Doors are finished natural, stained or painted any color to suit, and varnished. All Hardwood Doors are filled and varnished.

All prices include the covering of the Doors with 14-mesh Black Painted Wire-cloth, unless otherwise stated.

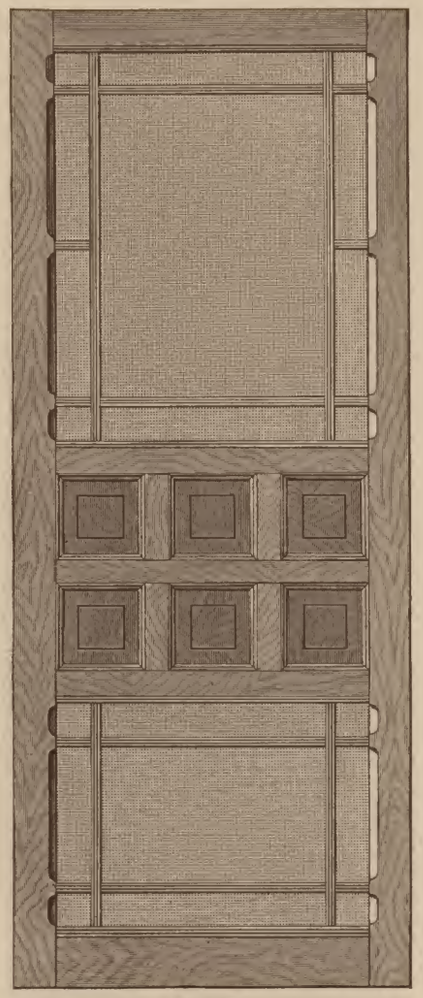
Prices given for Pine, etc., are the same for White Pine, Hard or Norway Pine, Poplar, Linden (Basswood) and Cypress.

Prices given for Oak, etc., are the same for Plain-sawed White or Red Oak, Ash, Butternut, Maple, Chestnut, Birch, Gum and California Red Wood.

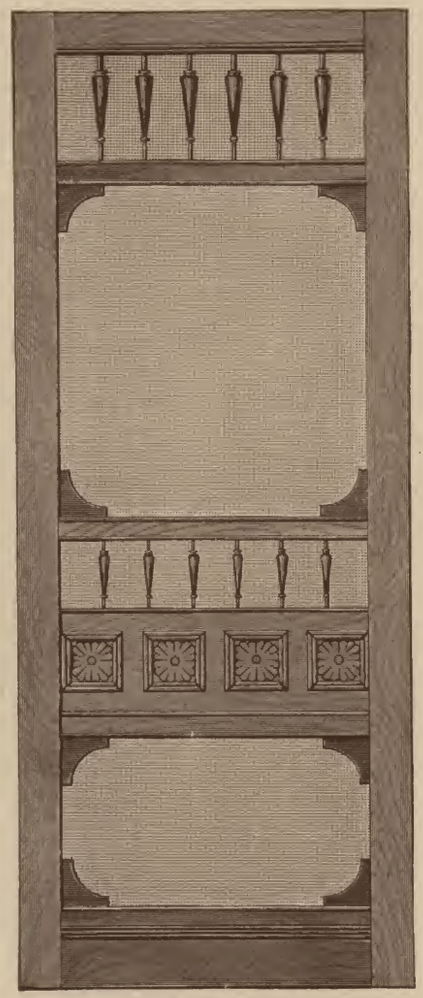
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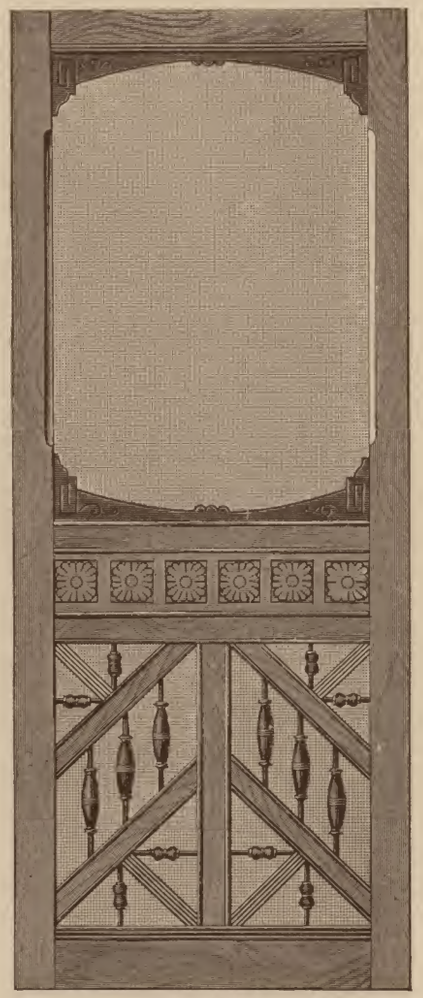
No. 98.



No. 99.



No. 100.



No. 101.

Willer's Ornamental Made-to-order Screen Doors.

Prices for Screen Doors vary according to size and kind of wood and finish.

All Single Doors up to 3.0 x 7.1, are one price; for each additional 2 inches or fraction thereof in width, and for each additional 6 inches or fraction thereof in height, a certain extra charge is made.

All Double Doors are charged for at double the price of single doors, and $1.00 extra for the making and finishing of the centre-joints.

The standard thickness is 1⅛ inch. Doors 1⅜ and 1¾ inch thick, cost extra.

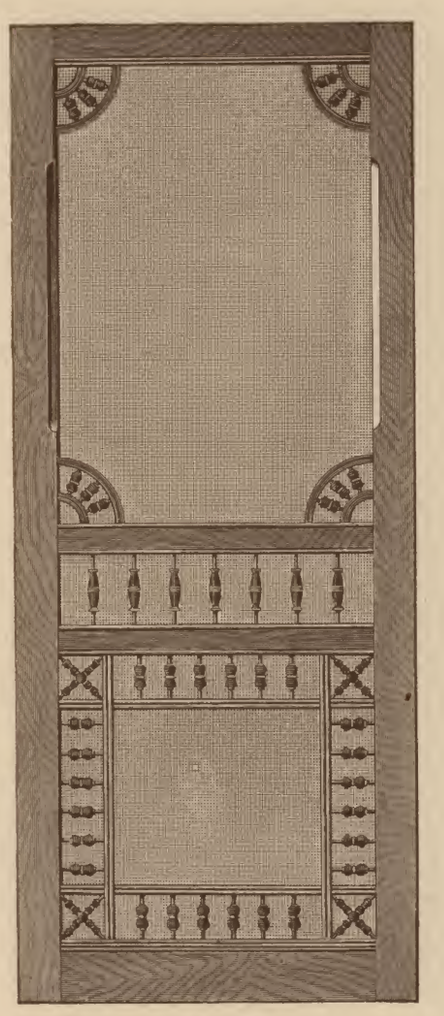
All Pine Doors are finished natural, stained or painted any color to suit, and varnished. All Hardwood Doors are filled and varnished.

All prices include the covering of the Doors with 14-mesh Black Painted Wire-cloth, unless otherwise stated.

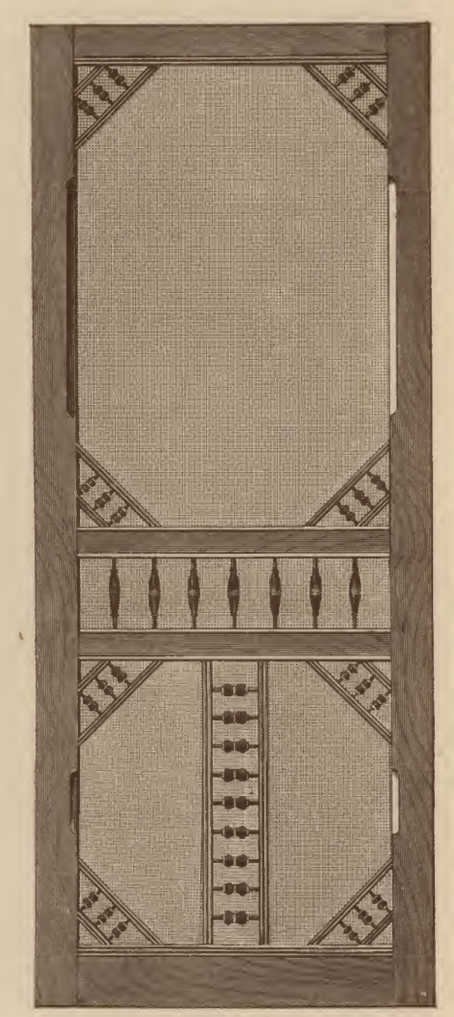
Prices given for Pine, etc., are the same for White Pine, Hard or Norway Pine, Poplar, Linden (Basswood) and Cypress.

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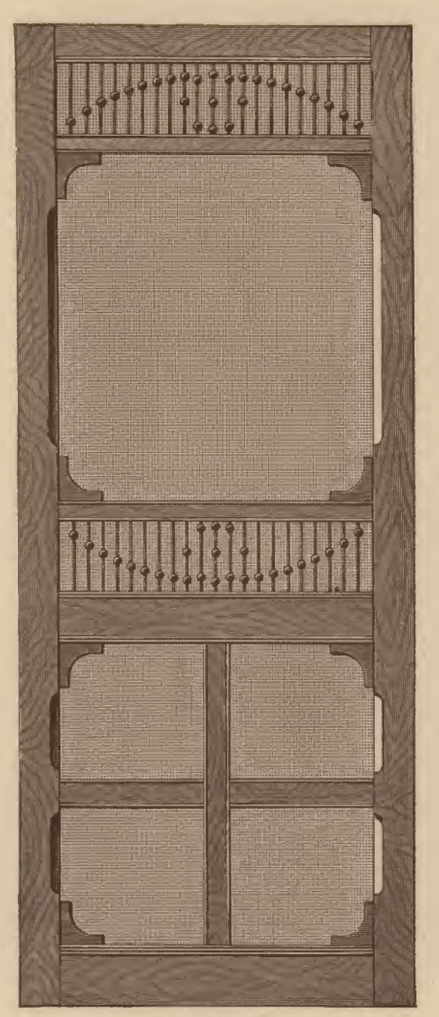
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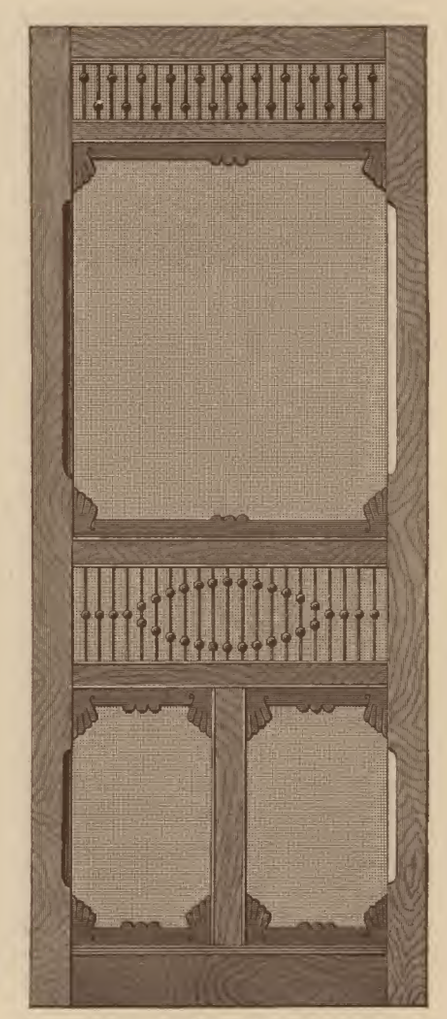
No. 102.



No. 103.



No. 104.



No. 105.

Willer's Ornamental Made-to-order Screen Doors.

Prices for Screen Doors vary according to size and kind of wood and finish.

All Single Doors up to 3.0 x 7.1, are one price; for each additional 2 inches or fraction thereof in width, and for each additional 6 inches or fraction thereof in height, a certain extra charge is made.

All Double Doors are charged for at double the price of single doors, and $1.00 extra for the making and finishing of the centre-joints.

The standard thickness is 1⅛ inch. Doors 1⅜ and 1¾ inch thick, cost extra.

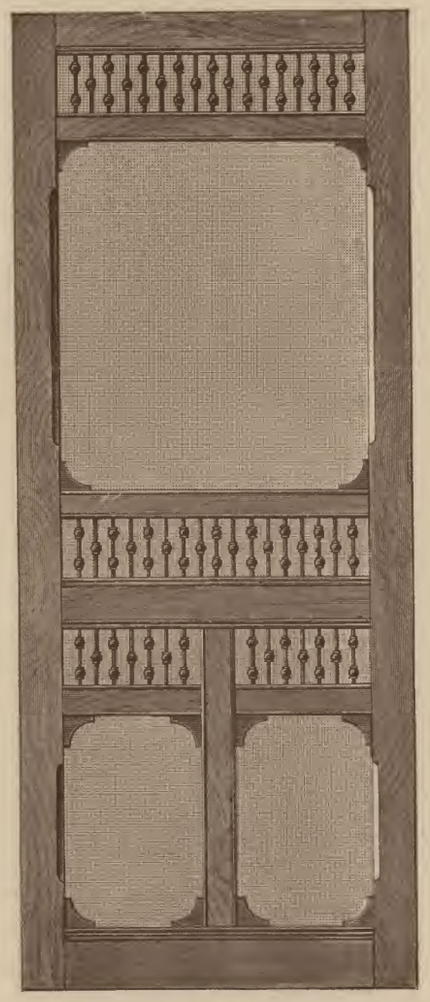
All Pine Doors are finished natural, stained or painted any color to suit, and varnished. All Hardwood Doors are filled and varnished.

All prices include the covering of the Doors with 14-mesh Black Painted Wire-cloth, unless otherwise stated.

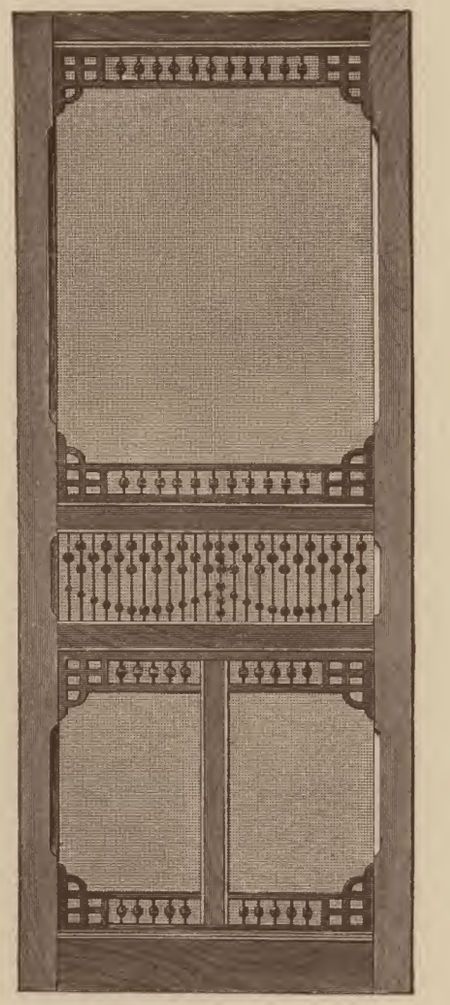
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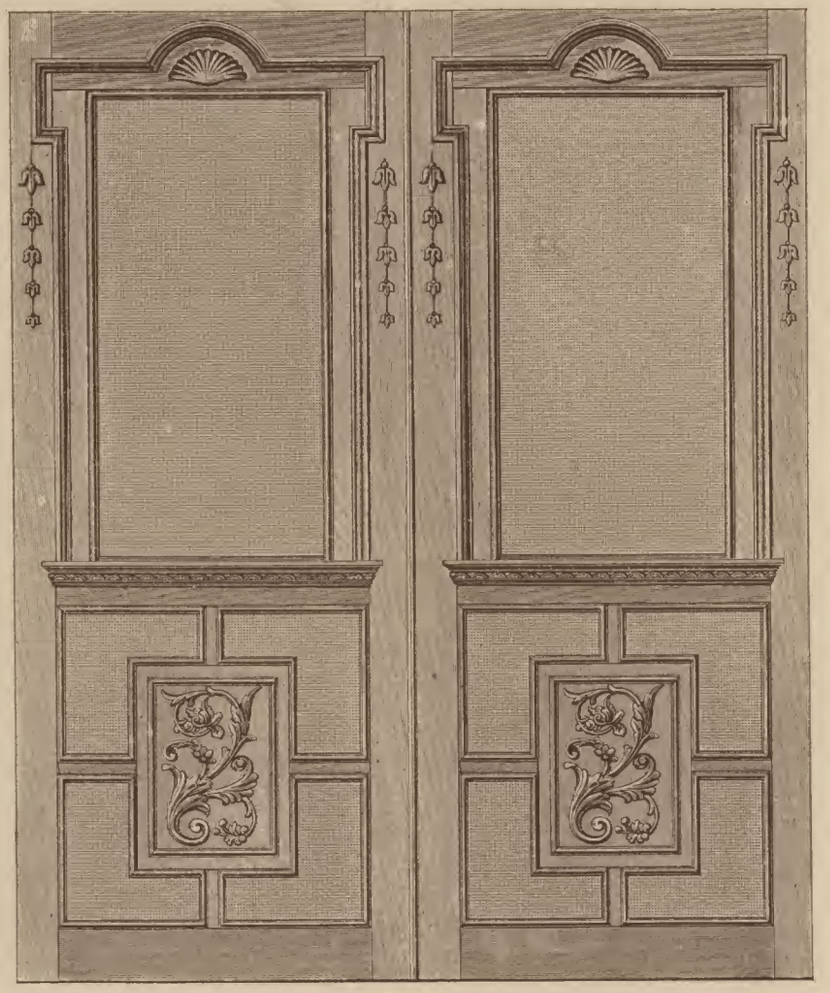
Prices given for Cherry, etc., are the same for Cherry, Walnut, Quarter-sawed Red and White Oak, Quarter-sawed Sycamore and Curly Southern Pine.



No. 106.



No. 107.



No. 52.

Willer's Ornamental Made-to-order Screen Doors.

Prices for Screen Doors vary according to size and kind of wood and finish.

All Single Doors up to 3.0 x 7.1, are one price; for each additional 2 inches or fraction thereof in width, and for each additional 6 inches or fraction thereof in height, a certain extra charge is made.

All Double Doors are charged for at double the price of single doors, and $1.00 extra for the making and finishing of the centre-joints.

The standard thickness is 1⅛ inch. Doors 1⅜ and 1¾ inch thick, cost extra.

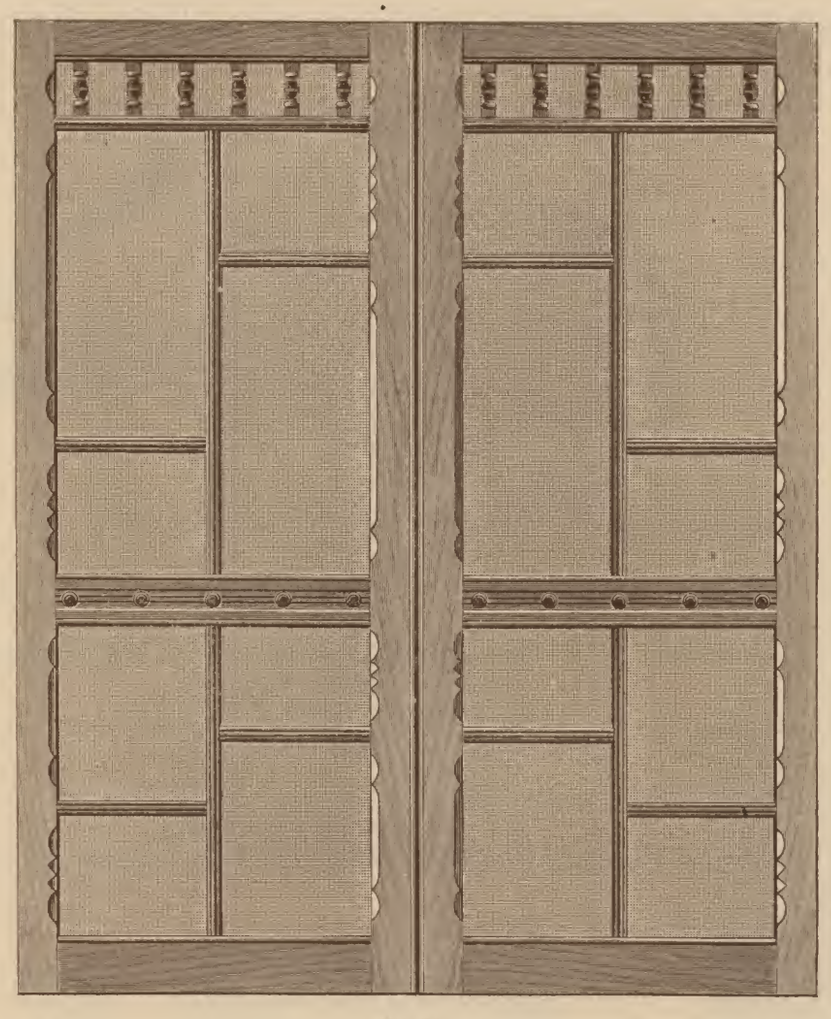
All Pine Doors are finished natural, stained or painted any color to suit, and varnished. All Hardwood Doors are filled and varnished.

All prices include the covering of the Doors with 14-mesh Black Painted Wire-cloth, unless otherwise stated.

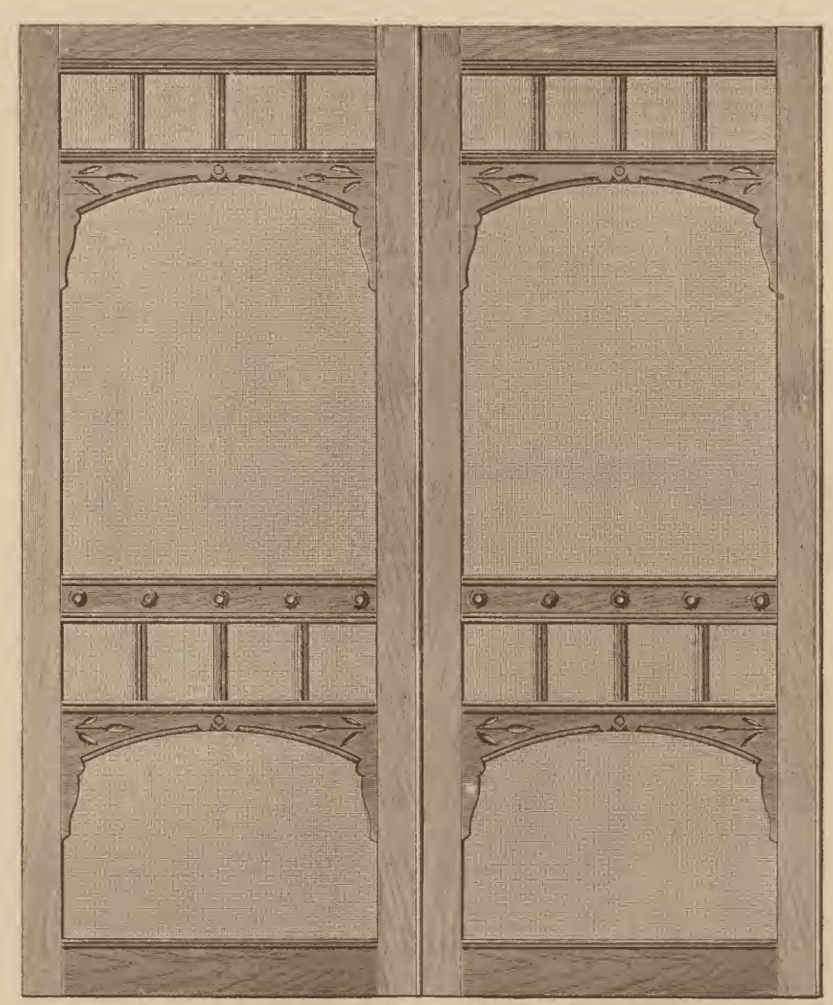
Prices given for Pine, etc., are the same for White Pine, Hard or Norway Pine, Poplar, Linden (Basswood) and Cypress.

Prices given for Oak, etc., are the same for Plain-sawed White or Red Oak, Ash, Butternut, Maple, Chestnut, Birch, Gum and California Red Wood.

Prices given for Cherry, etc., are the same for Cherry, Walnut, Quarter-sawed Red and White Oak, Quarter-sawed Sycamore and Curly Southern Pine.



No. 50.



No. 51.

Willer's Ornamental Made-to-order Screen Doors.

Prices for Screen Doors vary according to size and kind of wood and finish.

All Single Doors up to 3.0 x 7.1, are one price; for each additional 2 inches or fraction thereof in width, and for each additional 6 inches or fraction thereof in height, a certain extra charge is made.

All Double Doors are charged for at double the price of single doors, and $1.00 extra for the making and finishing of the centre-joints.

The standard thickness is 1⅛ inch. Doors 1⅜ and 1¾ inch thick, cost extra.

All Pine Doors are finished natural, stained or painted any color to suit, and varnished. All Hardwood Doors are filled and varnished.

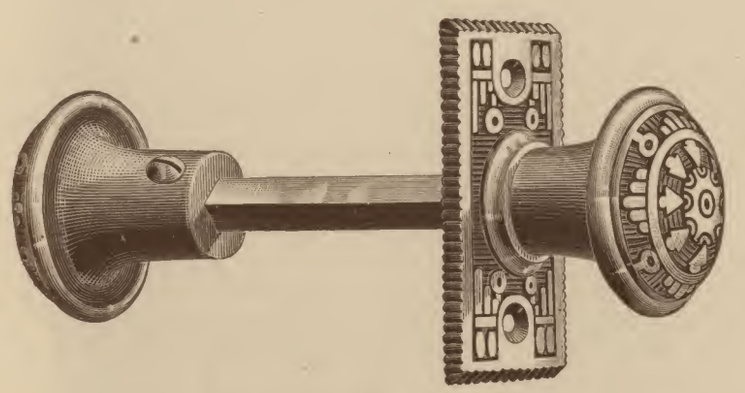
All prices include the covering of the Doors with 14-mesh Black Painted Wire-cloth, unless otherwise stated.

Prices given for Pine, etc., are the same for White Pine, Hard or Norway Pine, Poplar, Linden (Basswood) and Cypress.

Prices given for Oak, etc., are the same for Plain-sawed White or Red Oak, Ash, Butternut, Maple, Chestnut, Birch, Gum and California Red Wood.

Prices given for Cherry, etc., are the same for Cherry, Walnut, Quarter-sawed Red and White Oak, Quarter-sawed Sycamore and Curly Southern Pine.

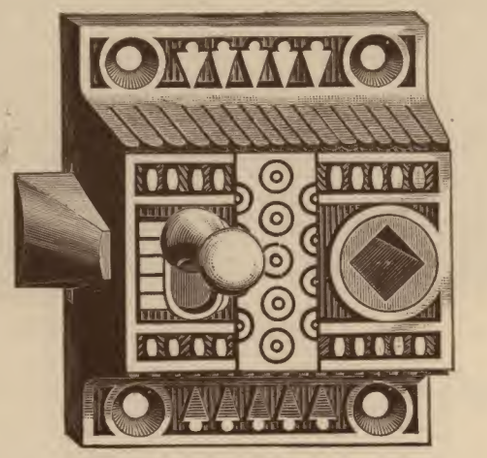
WILLER'S SELECTION OF HARDWARE FOR SCREEN DOORS.



Full Size Cut of Knobs and Plate.



Strike.



Catch.

SCREEN DOOR CATCHES.

For Single Doors, ⅞ to 1⅜ inches in thickness. Plain Stop. Reverse Bevel.

No. 445—Iron, Berlin Bronze Finish, Polished Raised Surfaces, each.....

This is the cheapest Catch we handle. It is a good Catch for Basement, Kitchen and other rear Doors.

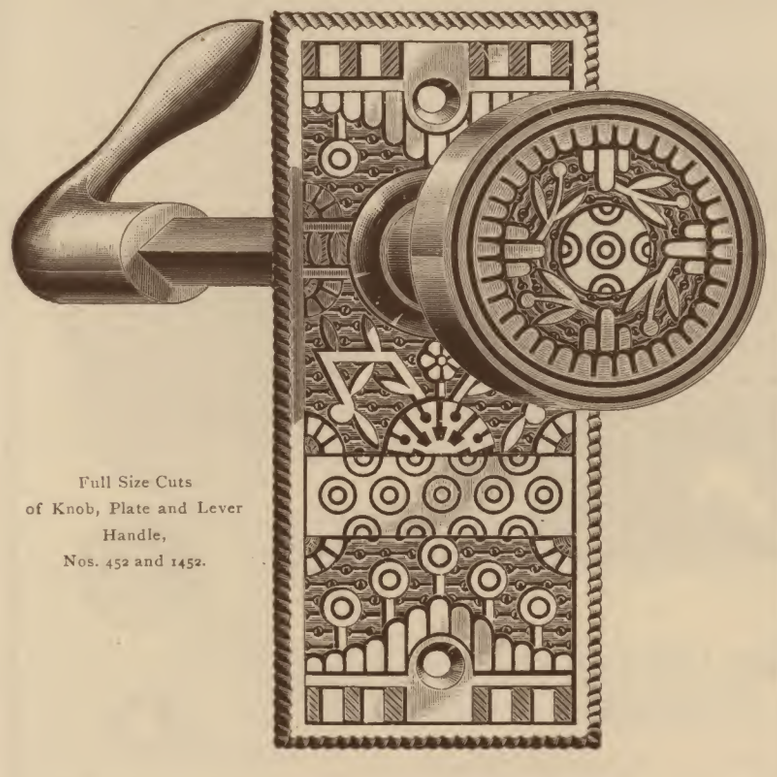
IN this and the following pages we present illustrations and description of Hardware suitable for Screen Doors. We have selected from the Catalogues of various manufacturers such goods as we consider most appropriate and serviceable for the purpose; some of the articles shown herein are not regularly made by the manufacturers, and we have had them specially made from our own patterns.

Anything that may be wanted outside of what is herein shown, we will endeavor to procure for our customers, if full particulars are given us.

All of the Screen Door Hardware herein shown and described, we carry in stock and can fill orders for same promptly.

Any prices that we may publish or quote upon inquiry for Screen Doors, do not include any Hardware for these Doors. The Hardware required must in all cases be separately ordered. Where we make contracts for screening buildings complete, either direct or through our selling agents, we of course include the necessary Hardware, distinctly stating however in our propositions the style and grade of Hardware we intend to furnish.

SCREEN DOOR CATCHES.



Full Size Cuts
of Knob, Plate and Lever
Handle,
Nos. 452 and 1452.

FOR SINGLE DOORS, 7/8 TO 1 3/8 INCHES IN THICKNESS.

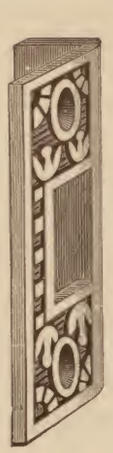
WE HAVE NO STRIKING-PLATE FOR DOUBLE DOORS IN THIS PATTERN.

Large Knob and Plate for outside. Catch and Lever Handle for inside of Door. Bronze Metal Stop. Reverse Bevel.

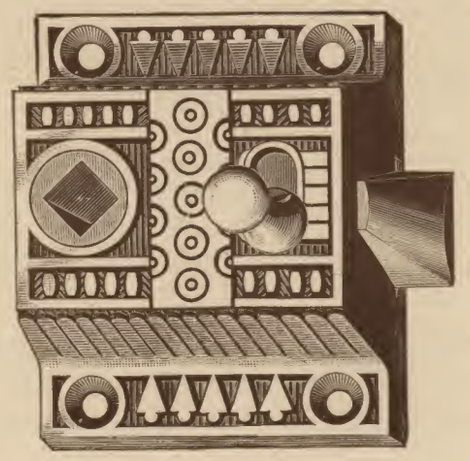
ORNAMENTAL PATTERN.

No. 452 — Iron Metal, Bronze Plated, Polished Raised Surfaces, Black Background, . each.....

No. 1452 — Genuine Bronze Metal, Polished Raised Surfaces, Black Background, . . each.....



Strike for Single Doors.



Catch for Inside of Door.



SUMMER RESIDENCE

AT PINE LAKE, WAUKESHA COUNTY, WISCONSIN, OF

MR. GEORGE BRUMDER,

Book-Seller and Publisher. President of the Germania Publishing Company, Milwaukee, Wisconsin.
Fitted throughout with Willer Mfg. Co.'s Door and Window Screens.

WILLER'S NEW IMPROVED SCREEN DOOR CATCHES.



Knob and Plate for Outside of Door.

(SPECIALLY MANUFACTURED FOR THE WILLER MANUFACTURING COMPANY.)

For Single and Double Doors, ⅞ to 1⅜ inches in thickness.

SCREEN DOOR CATCH.

Reverse Bevel Bolt.

Furnished with Strikes for either Single or Double Doors. Packed complete with Screws to match.

No. 5892 P—Genuine Bronze Metal, plain, highly polished surfaces, price each, ...

No. AB 5892 P—Genuine Bronze Metal, Antique Copper Finish, price each, ...

No. BB 5892—Iron, Bower-Barff, Blue-Black or Rustless Iron Finish, price each, ...

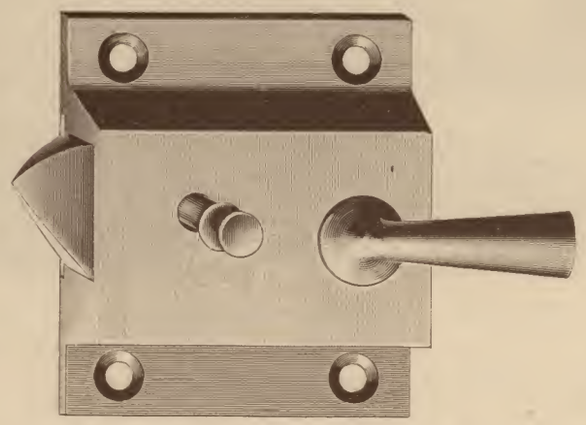
Above 3 finishes we carry in stock. Other finishes supplied upon special order, at extra cost. The Striking-plate for Double Doors is specially made to fit the Astragal Joint (illustrated elsewhere) that we usually furnish with our Double Doors.



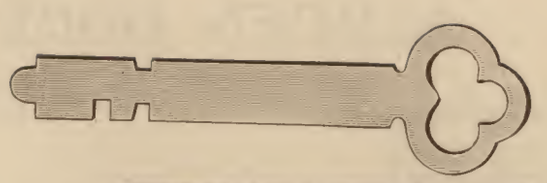
Strike for Single Doors.

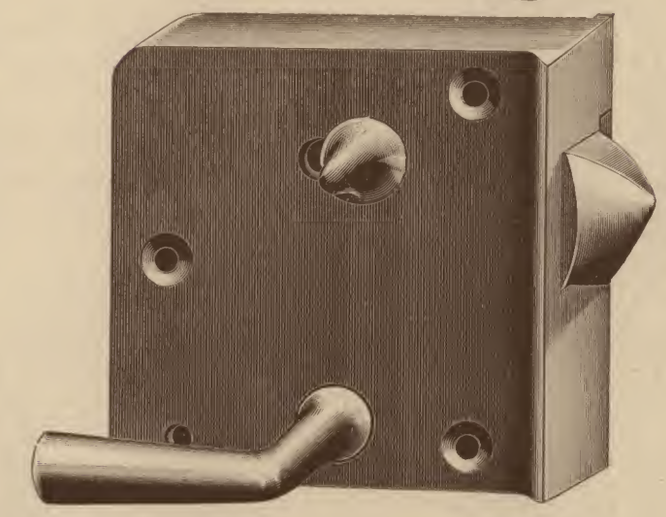


Strike for Double Doors.



Catch and Handle for Inside of Door.





Catch and Handle for Inside of Door.

RIM SCREEN DOOR CATCH.

With Night Work or Key.

Furnished with Strikes for either Single or Double Doors, the same as illustrated with Catches Nos. 5892 P, AB 5892 P and BB 5892. Packed complete with Screws to match.



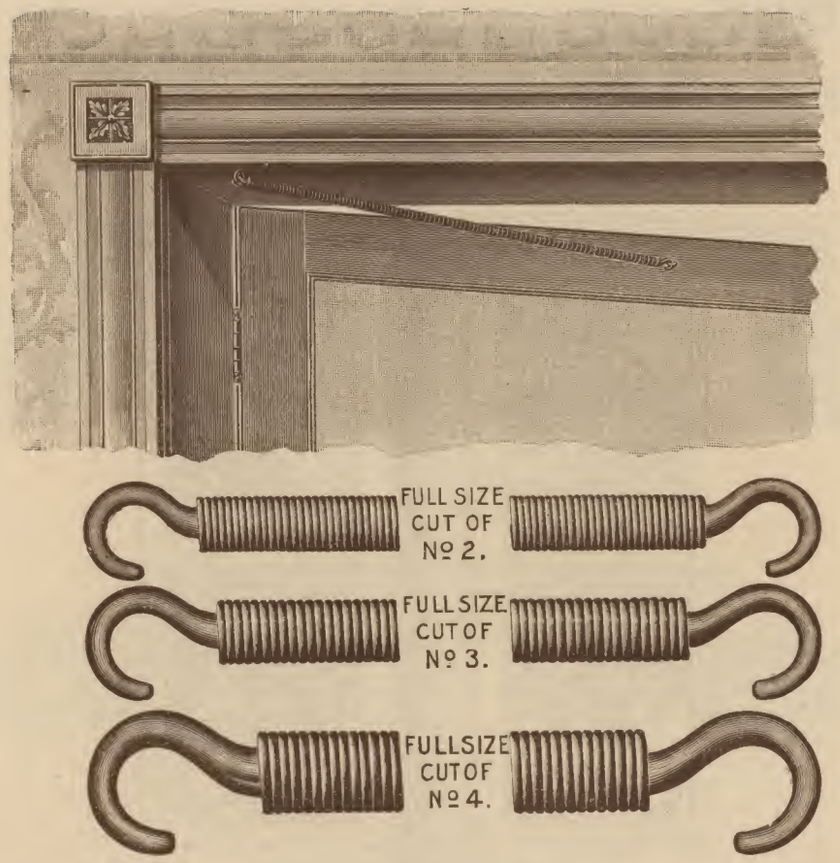
Knob and Plate for Outside of Door.

No. 5782 P—Genuine Bronze Metal, plain, highly polished surfaces, with two flat steel keys, price each, ...

We do not carry any other finish in stock than Plain Bronze. Antique Copper or any other finish supplied upon special order at extra cost.

In the above Catches, the spindle on the Knob does not reach through the Catch, but only into it, connecting with the lever handle on the inside of the door, thus enabling the Catch to be properly fitted and adjusted without the use of small washers usually supplied with Door-Knob Spindles.

SCREEN DOOR SPRINGS.



THE "PERFECT" DOOR SPRING.

Japanned. Draws the Door Shut from the Inside. Length of Spring, Including Hooks, about 17½ Inches. Cheap, Simple, Durable, Effective.

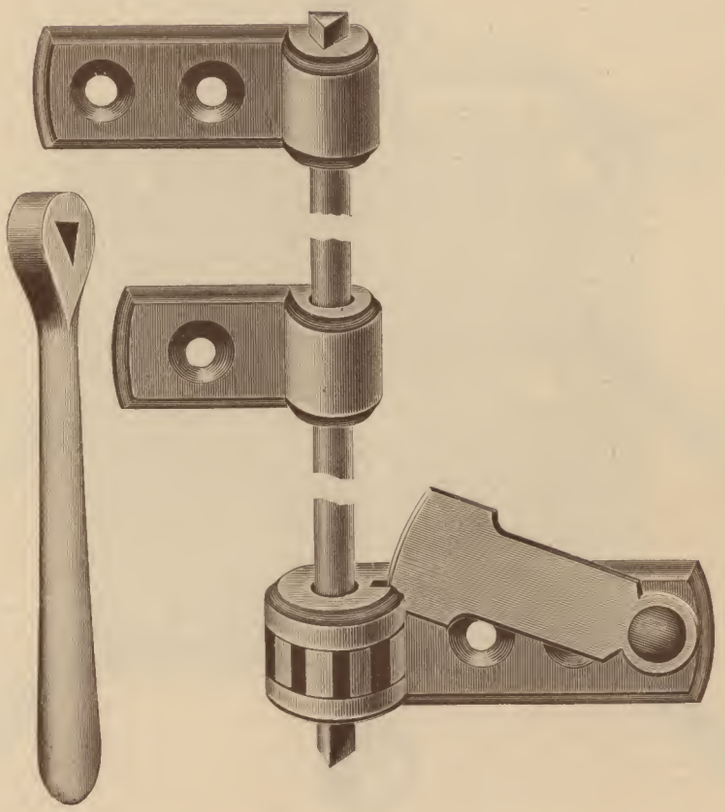
This is one of the best and cheapest Door Springs in the market. It consists of a closely coiled Steel Wire Spring, handsomely japanned, with hooks at each end and Screw-eyes to be inserted in Door and Frame. If properly adjusted, nothing can be more simple or effective. It never gets out of order and can be put on or taken off in a moment. It is made of crucible steel wire, will stretch double its length and hold its life indefinitely.

Directions for Fitting: Place the Spring at the top of the Door, on the inside, with one screw-eye in the Door and the other in the top-jamb or in the side-jamb near the top. Set screw-eye so that Spring has a few inches of stretch when Door is closed.

No. 2—For small, light Screen Doors, ... each..... per dozen.....

No. 3—For medium sized Screen Doors, ... each..... per dozen.....

No. 4—For large sized Screen Doors, ... each..... per dozen.....



THE "TORREY" DOOR SPRING.

Japanned. Pushes the Door Shut from the Outside.

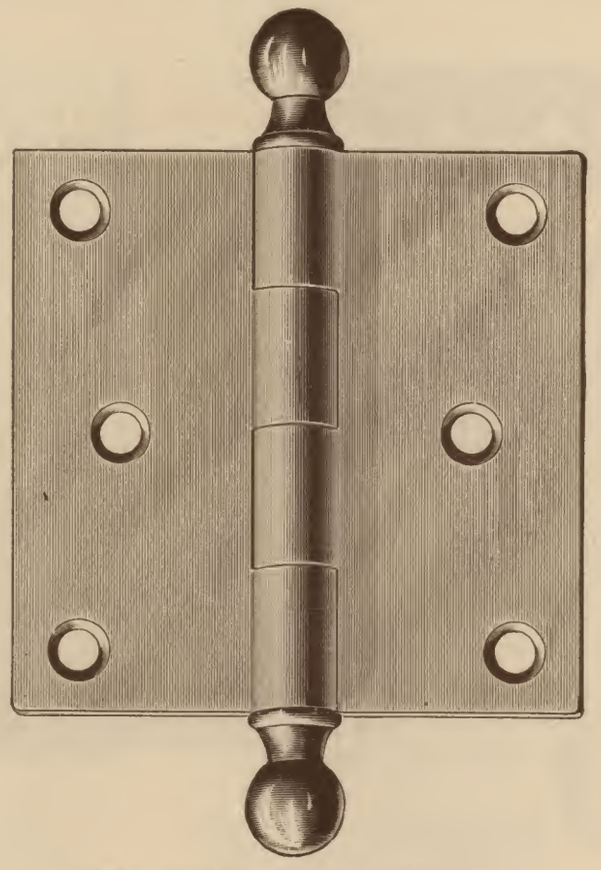
This is an old and well-known Spring. The Steel Rod, shown broken in cut, is about 39 inches long. With the aid of the handle, also shown in cut, the spring can be set to any desired tension.

Malleable Iron, Japanned, Steel Rod and Handle, packed with screws, each.....

per dozen.....

LOOSE PIN BUTTS FOR SCREEN DOORS.

EITHER RIGHT OR LEFT HAND. BALL TIPS. PLAIN AND ORNAMENTAL PATTERN.

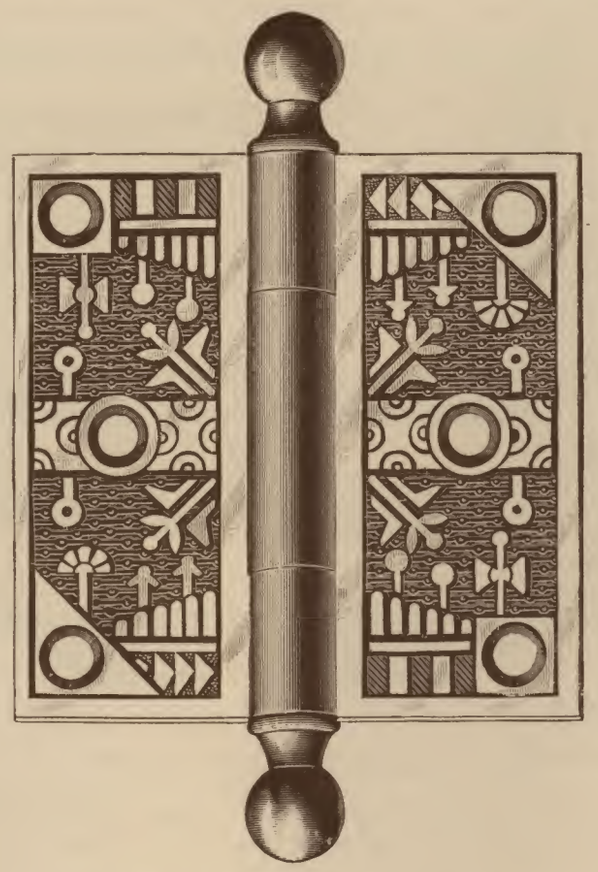


Full size cut of No. 731, etc. Size, 3x3 inches.

PLAIN PATTERN.

	3x3 inches.	3½x3½ inches.
No. 731—Wrought Steel, Black Japanned Finish, a good serviceable hinge, suitable for almost any kind of screen door, ... Per pair,	.....	.....
No. 239—Wrought Steel, Bronze-Plated, Polished Surfaces, to match Catch No. 5892 P, ... Per pair,	.....	.....
No. 1541 P—Genuine Bronze Metal, Plain Highly Polished Surfaces, to match Catch No. 5892 P, ... Per pair,	.....	.....
No. A B 1541 P—Genuine Bronze Metal, Antique Copper Finish, to match Catch No. AB 5892 P, ... Per pair,	.....	.....
No. B B 136—Iron, Bower-Barff or Rustless Iron Finish, to match Catch No. BB 5892, ... Per pair,	.....	....

Other Finishes supplied upon special order at extra cost.



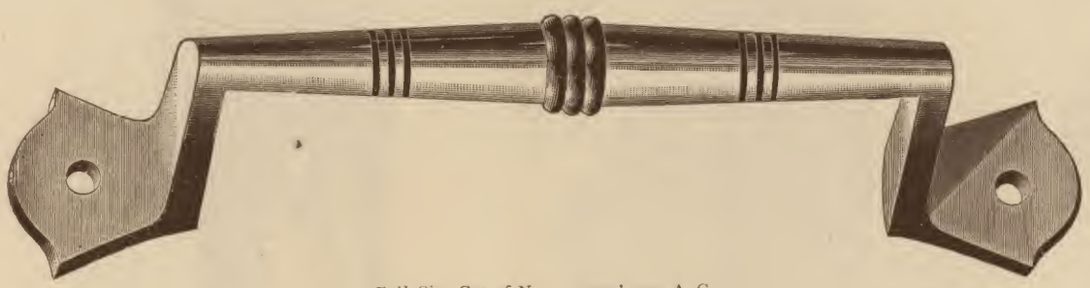
Full size cut of No. 051, etc. Size, 3x3 inches.

ORNAMENTAL PATTERN.

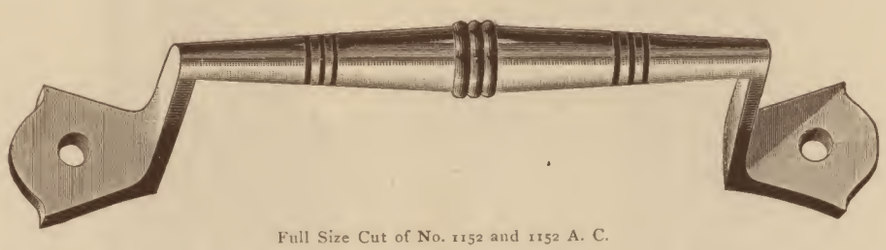
	3x3 inches.	3½x3½ inches.
No. 051—Iron, Berlin Bronze Finish, Polished Raised Surfaces, . Per pair,	.....	.....
To match Screen Door Catch No. 445.		
No. 055—Iron, Bronze-Plated, Polished Raised Surfaces, black background, ... Per pair,	.....	.....
To match Screen Door Catch No. 452.		
No. 068—Genuine Bronze Metal, Polished Raised Surfaces, black background, ... Per pair,	.....	....
To match Screen Door Catch No. 1452.		

SCREEN DOOR HANDLES OR PULLS.

FOR DOUBLE SWINGING DOORS OR FOR DOORS NOT PROVIDED WITH CATCHES.



Full Size Cut of No. 1153 and 1153 A. C.



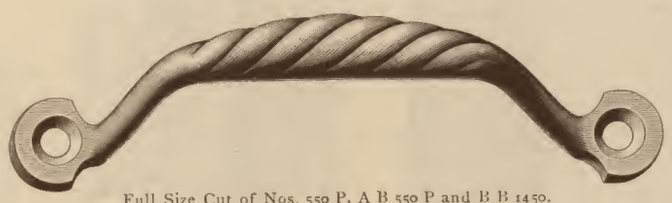
Full Size Cut of No. 1152 and 1152 A. C.



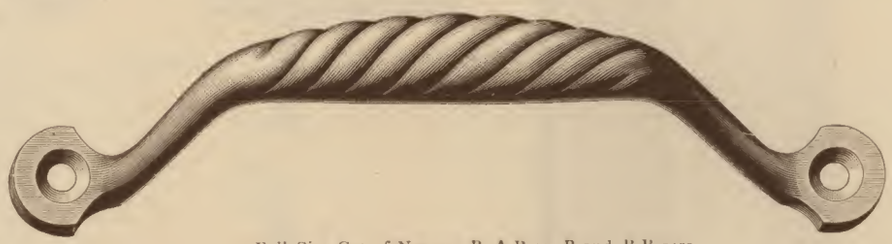
Full Size Cut of No. 1151 and 1151 A. C.

No. 1151 —3½ inches long, Genuine Bronze, natural polished finish, . . . each .....
No. 1151 A C —3½ inches long, Genuine Bronze, antique copper finish, ... " .....
No. 1152 —4¾ inches long, Genuine Bronze, natural polished finish, . . . " .....
No. 1152 A C —4¾ inches long, Genuine Bronze, antique copper finish, . . . " .....
No. 1153 —6 inches long, Genuine Bronze, natural polished finish, ... " .....
No. 1153 A C —6 inches long, Genuine Bronze, antique copper finish, ... " .....

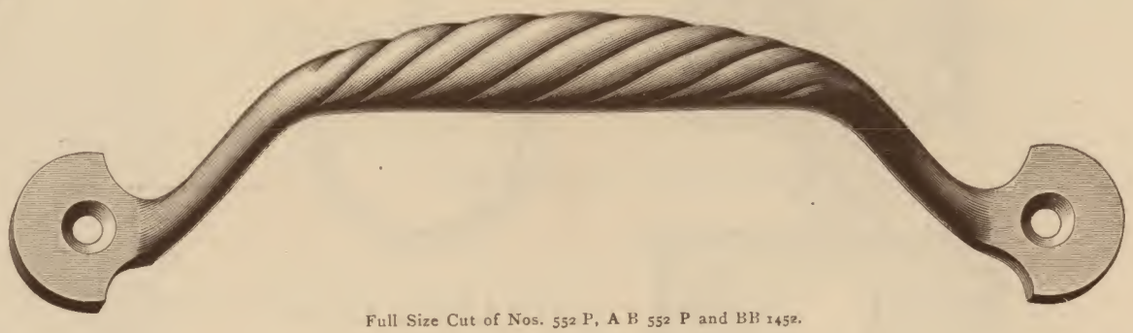
Packed with Screws to match.



Full Size Cut of Nos. 550 P, A B 550 P and B B 1450.



Full Size Cut of Nos. 551 P, A B 551 P and B B 1451.



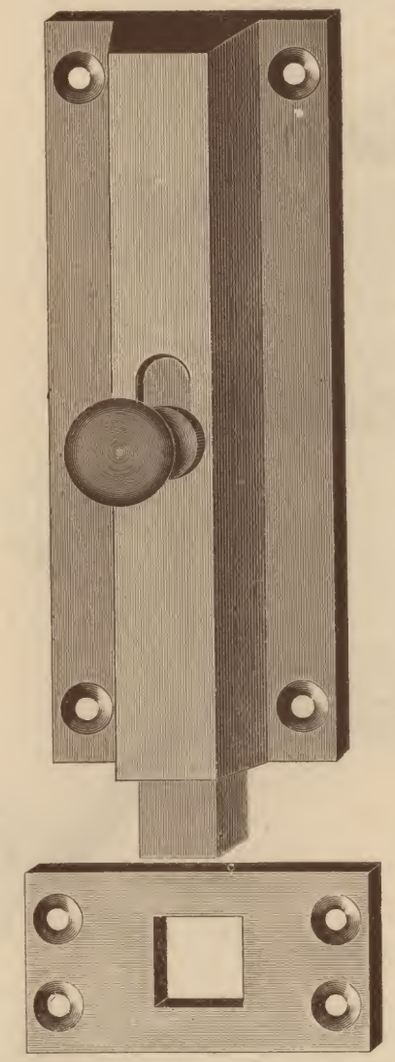
Full Size Cut of Nos. 552 P, A B 552 P and BB 1452.

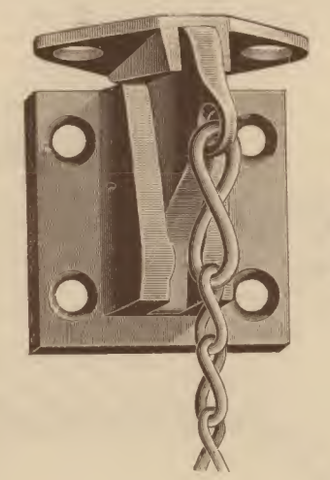
No. 550 P —3½ inches long, Genuine Bronze, natural polished finish, . . . each .....
No. A B 550 P—3½ inches long, Genuine Bronze, antique copper finish, ... " .....
No. B B 1450 —3½ inches long, Iron, Bower-Barff finish, ... " .....
No. 551 P —4¾ inches long, Genuine Bronze, natural polished finish, . . . " .....
No. A B 551 P—4¾ inches long, Genuine Bronze, antique copper finish, ... " .....
No. B B 1451 —4¾ inches long, Iron, Bower-Barff finish, ... " .....
No. 552 P —6 inches long, Genuine Bronze, natural polished finish, ... " .....
No. A B 552 P—6 inches long, Genuine Bronze, antique copper finish, ... " .....
No. B B 1452 —6 inches long, Iron, Bower-Barff finish, ... " .....

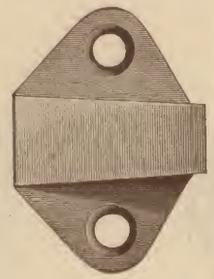
Packed with Screws to match.

TOP AND BOTTOM FASTENINGS.

FOR DOUBLE SCREEN DOORS.







Front View of Plate.

FULL SIZE CUT OF

BOTTOM BOLT,

For bottom of Door.
Length of Case, 4 inches.

No. 502 P—Genuine Bronze Metal, Natural Polished Finish, ... Each, ...

No. A B 502 P—Genuine Bronze Metal, Antique Copper Finish, ... Each, ...



FULL SIZE CUT

WILLER'S CHAIN CATCH,

For top of Door.
Brass Ring and Chain,
Length of Chain, 3 feet.

This is of our own make and is simpler and better adapted for the purpose than anything else that we know of.

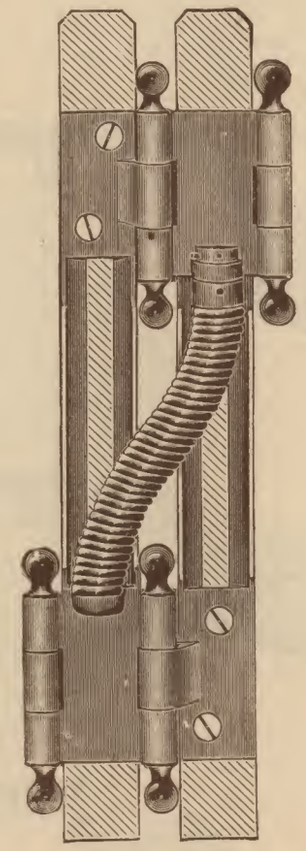
No. 500 P—Genuine Bronze Metal, Natural Polished Finish, ... Each, ...

No. A B 500 P—Genuine Bronze Metal, Antique Copper Finish, ... Each, ...

CHICAGO DOUBLE ACTING SPRING BUTTS.

FOR DOUBLE DOORS SWINGING BOTH WAYS.





		For Doors 1⅛ to 1¼ in. thick.	For Doors 1⅜ to 1½ in. thick.	For Doors 1¾ to 2 in. thick.
No. 1—Japanned, Lacquered Springs, ...	per pair,	.....	.....	.....
No. 131—Iron, Common Bronzed, ...	"	.....	.....	.....
No. 61—Japanned, Nickel-Plated Springs and Tips,	"	.....	.....	.....
No. 71—Japanned, Bronze-Plated Springs and Tips,	"	.....	.....	.....
No. 81—Ground Opal Bronzed, ...	"	.....	.....	.....
No. 21—Full Nickel-Plated, ...	"	.....	.....	.....
No. 31—Full Bronze-Plated, ...	"	.....	.....	.....
No. 151—Iron, Antique Copper Finish, ...	"	.....	.....	.....
No. 121—Iron, Bower-Barff Finish, ...	"	.....	.....	.....
No. 141—Iron, Oxidized Silver Finish, ...	"	.....	.....	.....
No. 41—Genuine Bronze Metal, ...	"	.....	.....	.....
No. 51—Polished Brass, ...	"	.....	.....	.....
No. 91—Bronze Metal, Antique Copper Finish, .	"	.....	.....	.....
No. 101—Bronze Metal, Oxidized Silver Finish, .	"	.....	.....	.....

When ordering any of these, mention number of Butt wanted and state thickness of door, as the same numbers apply to the different thicknesses. We can supply these Butts for other doors up to four inches in thickness.



THE MAGNIFICENT
RESIDENCE OF

MR. CHRISTIAN HEURICH,

CORNER NEW HAMPSHIRE AVENUE
AND SUNDERLAND PLACE, N. W.

WASHINGTON, D. C.

PRESIDENT OF THE
CHRISTIAN HEURICH BREWING ASSOCIATION.

.....

J. G. MEYERS, ARCHITECT,
1323 G Street, N. W., WASHINGTON, D. C.

FITTED THROUGHOUT WITH

WILLER'S SLIDING BLINDS.

MR. MEYERS' ENDORSEMENT.

Washington, D. C., February 12th, 1895.

WILLER MANUFACTURING CO., Milwaukee, Wis.

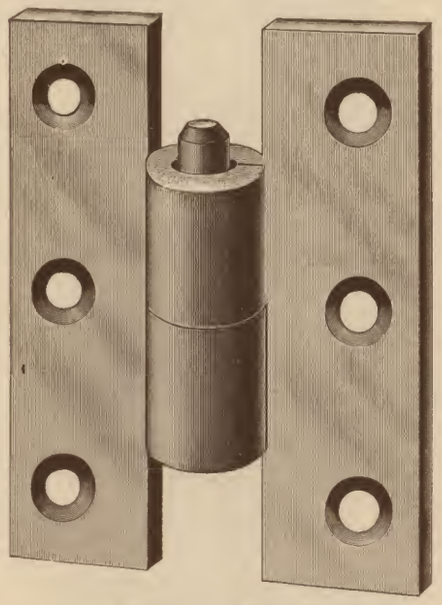
Gentlemen: It gives me pleasure to state in reference to the Inside Sliding Blinds furnished by you for Mr. Christian Heurich's residence about eighteen months ago, that as regards quality, finish and workmanship, they are all that could be desired, and I am heartily in favor of using them in all residences where first-class work is required.

Very truly yours,

(COPY.) (Signed) J. G. MEYERS.

HARDWARE FOR OUTSIDE HANGING WINDOW SCREENS.

TO GET the best service out of Window Screens covering the entire window, such screens should be hung on loose-joint hinges, enabling a person to entirely remove the screen from the window at will, or to at any time open the same so as to get at the windows for the purpose of cleaning them. The hardware illustrated and described below we have had specially made for us, and we recommend the same as the most suitable for the purpose.



Full Size Cut of Hinge No. 1889.

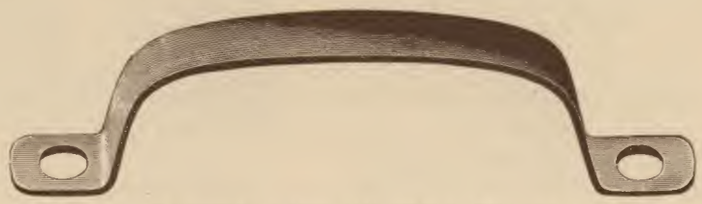
WILLER'S OUTSIDE SCREEN AND STORM SASH HINGE.

No. 1889.

Right-Hand. Loose Joint. Japanned.

The regular Loose-Joint Butts, usually found in hardware stores, have a too long and too thin pin, and finally "rust in." For outside use such hinges should have as much "free play" and as little friction as possible. With this object in view, we have had this Hinge specially made for the purpose. It is made of wrought steel, japanned finish. Furnished complete with Screws to match. We furnish it only right-hand.

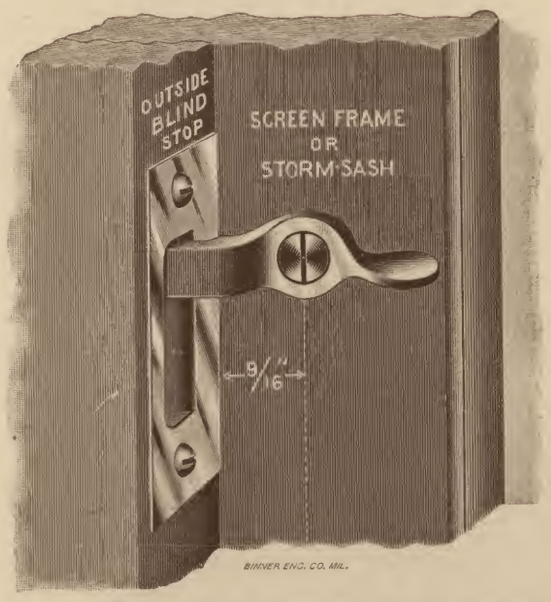
Price, per pair, ...



SCREEN LIFT OR PULL No. 10.

Stamped of Wrought Steel, Black Japanned Finish. Price each....., per dozen.....

One of these Pulls is to be screwed on screen-frame, a little below where the screen button is placed, so as to enable a person to shut the screen tightly against the blind-stop and easily turn the button into the mortise.



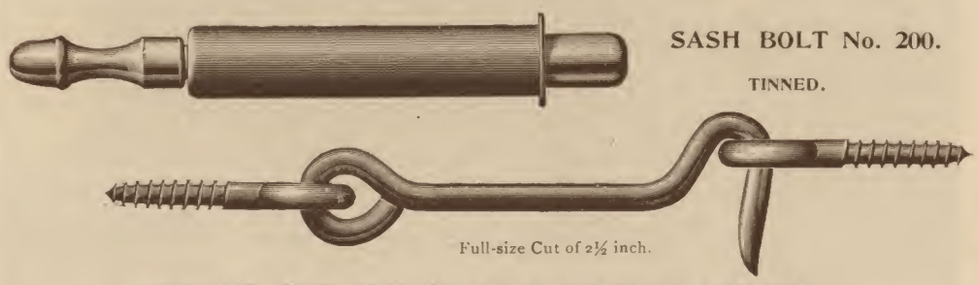
WILLER'S OUTSIDE SCREEN AND STORM SASH BUTTON.

No. 1634. Patented.

As shown in the illustration, this Button is screwed on the inside face of the window screen frame (or storm-sash), and when turned, its one edge goes into a mortise in the face of the blind-stop, which mortise is covered by a brass plate, thereby holding the frame securely in place. This brass plate is furnished to prevent the wearing out of the mortise; it has a spring lap attached to it, bent into the mortise, thereby giving the Button a firm hold. When used in connection with hinges, the hinges should be placed on the right-hand side, and one of these Buttons on the left-hand side of the screen frame, a little below the center and near the check-rail of the sash. Where it is not desired to hang screens on hinges, two Buttons are required for each side, or four Buttons for the entire window. Use Genuine Bronze Buttons in preference to Cast Iron, as they will not rust.

Cast Iron, Coppered Finish, Brass Plates, per dozen, ...

Genuine Bronze, Natural Finish, Brass Plates, per dozen, ...



SASH BOLT No. 200.

TINNED.

Full-size Cut of 2½ inch.

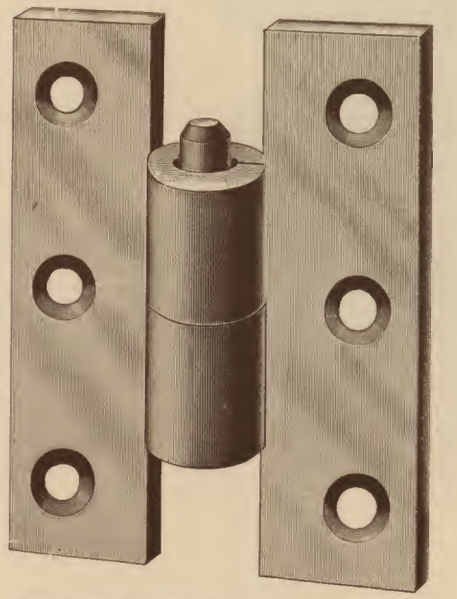
BRIGHT IRON AND BRASS WIRE HOOK AND EYE.

The above also afford cheap means of securing outside screens to window-frames. We have the Hook and Eye in all sizes from 2 inches up and can furnish it in Bright Iron or Brass. When ordering, mention size wanted.

Common F. H. Wood Screws. — Outside Screens can also be fastened by ordinary 2 inch screws, which can be had at any hardware store or which we will furnish upon special order.

HARDWARE FOR OUTSIDE STORM SASH.

STORM SASH are in general use throughout the country, where the climate is liable to be very severe in winter, and their usefulness is so well known that we need not here further describe them. These Sash are sold and made by almost all manufacturers of and dealers in Sash, Doors, Blinds and Lumber. In many cases, such Storm Sash are permanently secured to the window frames by screws, involving considerable labor and expense for putting them up and removing them again from the windows twice each year. Other just as primitive methods are in use, owing principally to the fact that there are no simple sets of hardware for the purpose on the general market. We consider the hardware we use on our Outside Hanging Screens so well adapted for use on Outside Storm Sash also, that we offer it to the Trade, Contractors, Builders and others, in quantities as required, at reasonable prices. The use of this hardware enables one to fit and hang both Storm Sash and Outside Screens in the same place, take off and put on both from the inside of the house, open both at will for the purpose of washing windows or admitting fresh air, thereby abolishing the necessity of ordering special ventilators for the Storm Sash.



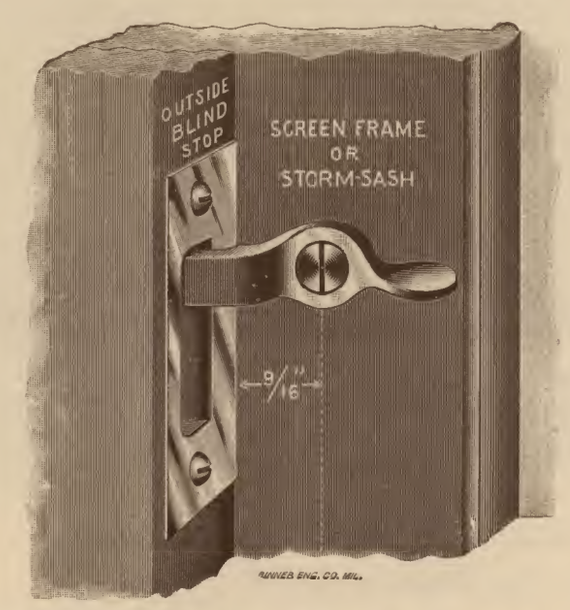
WILLER'S OUTSIDE SCREEN AND STORM SASH HINGE.

No. 1889.

Right Hand, Loose Joint, Wrought Steel. Japanned Finish.

See further description on page 268.

Price, per pair, ...



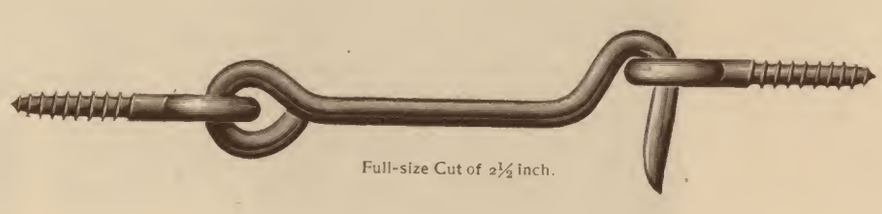
WILLER'S OUTSIDE SCREEN AND STORM SASH BUTTON.

No. 1634. Patented.

See further description on page 268.

Cast Iron, Coppered Finish, Brass Spring Plates, per dozen, ...

Genuine Bronze, Natural Finish, Brass Spring Plates, per dozen, ...



BRIGHT IRON AND BRASS WIRE GATE HOOK AND EYE.

This Hook is to be screwed on Storm Sash, near where one of the Buttons is used. It enables you to at any time open the sash for ventilation, and hooking it while open, and also aids you in drawing the sash tightly towards you when closing the sash, so that the Button can then be easily turned in place.

We can furnish the above in all sizes from 2½ inches up to 12 inches, either in Bright Iron or Brass wire. For Storm Sash, Hook should be about 6 or 8 inches long. When ordering, mention size wanted.



A SERIES OF NEW YORK CITY, N. Y., BUILDINGS,

Furnished with Willer Blinds or Screens.

Residence of Mr. J. P Baiter,
Nicholas Ave., betw. 149th and 150th Streets, New York City.
Theo. Stein, Architect, 2 W. 14th Street, New York City.

Rectory of Trinity School,
W. 91st Street, betw. 9th and 10th Avenues, New York City.
Charles C. Haight, Architect, 111 Broadway, New York City.

Residence of Mr. E. Thiele,
N. E. Corner Riverside Drive and 103d Street, New York City.
Geo. Edward Harding & Gooch, Architects, Postal Telegraph Building, New York City.

Residence of Mr. Wm. Buchanan,
14 E. 69th Street, New York City.
Lansing C. Holden. Architect, 1 and 3 Union Square, New York City.

Residences, 247-249-251 W. 72d Street, New York City.
Lamb & Rich, Architects, 265 Broadway, New York City.

Department of Stair Work.

Pages 271 to 320.

Our Stair-Work and Hardwood Finish Department.



THIS Department is under the supervision of a practical and experienced person in his profession. For the past thirty years we have furnished all kinds of wood-work for buildings, and while for most of this time our work embraced everything needed of wood in a building, we are now making a specialty of furnishing only hardwood interior wood-work for the better class of buildings, such as Casings or Trim for Windows and Doors, Hardwood Doors, Wainscoting, Base, etc., and especially the building of Artistic Stair Cases. Usually we get out such work according to Plans, Designs and Details furnished by the architect of the building. The quality of our work in this department is guaranteed to be strictly first-class and to be equal to that of any other manufacturer in this line. We furnish such work f. o. b. cars Milwaukee. Only in exceptional cases would we contract to put up and finish the work in the building outside of Milwaukee.

In nearly all cases we get Drawings and Details from the architects, and we therefore do not publish any other designs for Interior Wood-work than those shown in this catalogue. On the following pages we publish a number of designs for stair work. A good many of these represent designs and photographic reproductions of work we have actually turned out and put up in buildings, while a number of others represent only imaginary ideas and suggestions of our artist. These latter, however, will to a certain extent aid an architect in making his own designs, and an owner in making a selection suiting his tastes and requirements, while altogether they show pretty accurately what we are capable of turning out in this particular line. None of this work is carried in stock, everything being turned out only to order especially for the building for which it is intended.

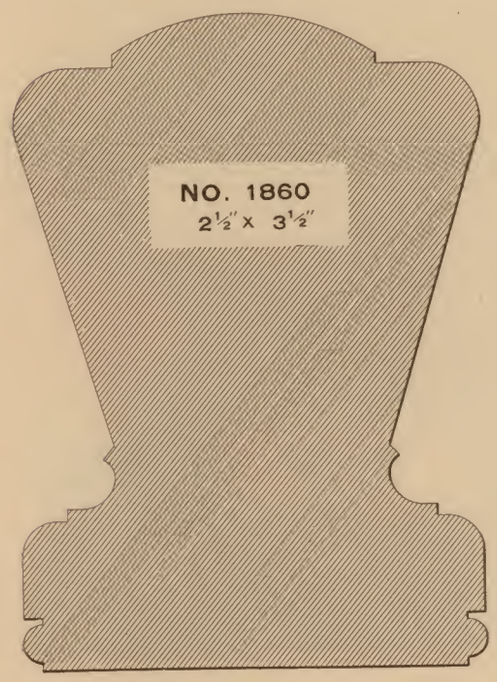
A large number of the finest residences in Milwaukee have been fitted out by us, and as a further evidence regarding the quality of our work and our abilities for carrying out our contracts, we refer to any of the following architects in Milwaukee:

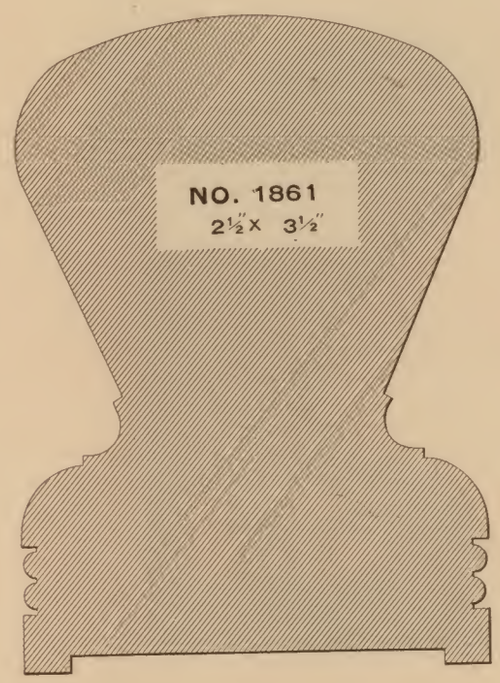
BUGBEE, FRANK N., 3 Plankinton Bank Bld'g.
CRANE & BARKHAUSEN, 91 Wisconsin St.
DAVELAAR, WM., 73 Loan & Trust Bld'g.
FERRY & CLAS, 419 Broadway.
FINK, CHAS. A., 15 Metropolitan Blk.
HOLBROOK, WALTER A., Evening Wisconsin Bld'g.
JACOBI & CO., 279 Third St.
KIMBALL, WM. D., 64 Colby & Abbot Bld'g.
KIRCHHOFF, CHAS. JR., 201 Grand Avenue.
KNAPP, JAY I., 428 Grand Avenue.
KOCH, EDW. V. & CO., 8–9 Iron Blk.
KOCH, H. C. & CO., 160 New Insurance Bld'g.
MESSMER, HENRY, Pabst Theatre Bld'g.
RINGER, C. F., 107 Wisconsin St.
RISCHE, C. H., 432 Chestnut St.
RUSSELL HOWLAND, 48 Hathaway Bld'g.
SCHNETZKY & LIEBERT, 107 Wisconsin St.
VAN RYN & LESSER, 36–37 Merrill Bld'g.
VELGUTH, FRED., Second Ward Bank Bld'g.
WISKOCIL, AUG. V., 106 Grand Avenue.

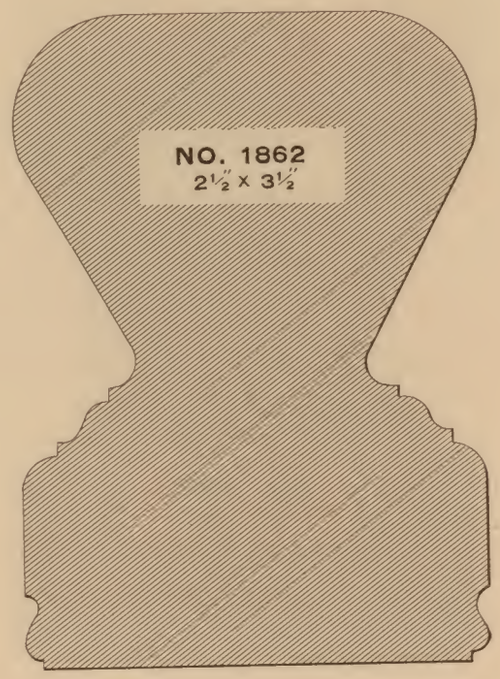
We can also refer to a large number of architects outside of Milwaukee.

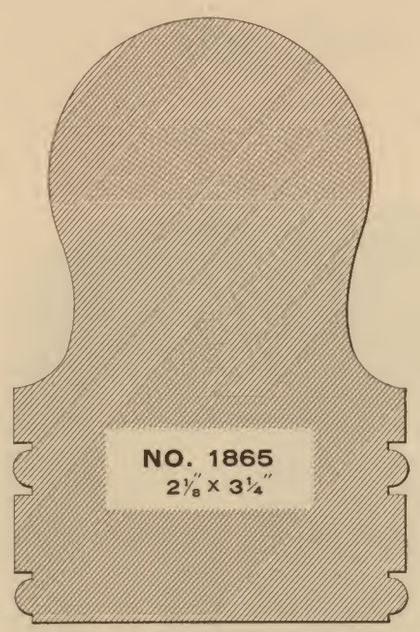
HAND-RAILING FOR STAIRS.

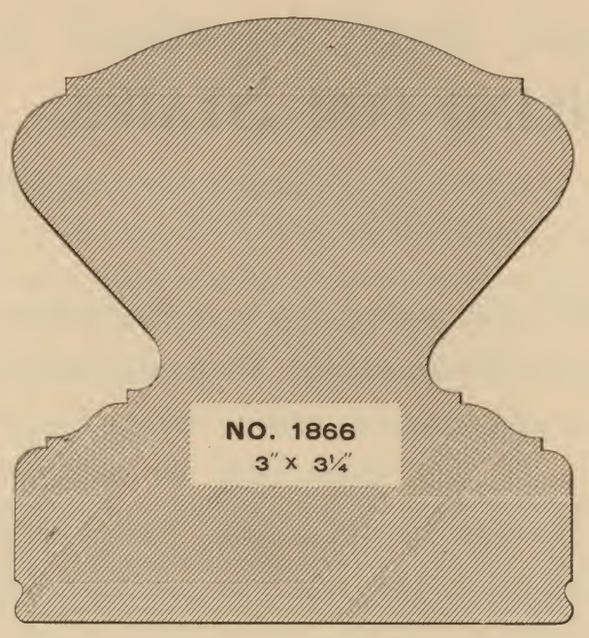
ON THIS and the following pages we publish a few modern designs of Hand-Railing for stairs. The designs are all drawn full size. Any of these designs can be changed to suit other dimensions. We furnish Stair Railing in straight pieces or cut to length, machine-stuck or hand-sandpapered, finished or unfinished, as may be ordered. We also furnish Stair Railing complete, including Easings, Crooks, Quarter and Half Circles, etc., made to fit and conform to stairs already built. In such cases we must have ground plan of stairs, together with full and complete information as to the manner in which the stair is built. Further directions we deem unnecessary to print here, as the required information will have to be given us by practical stair-builders, who know our requirements in such cases.

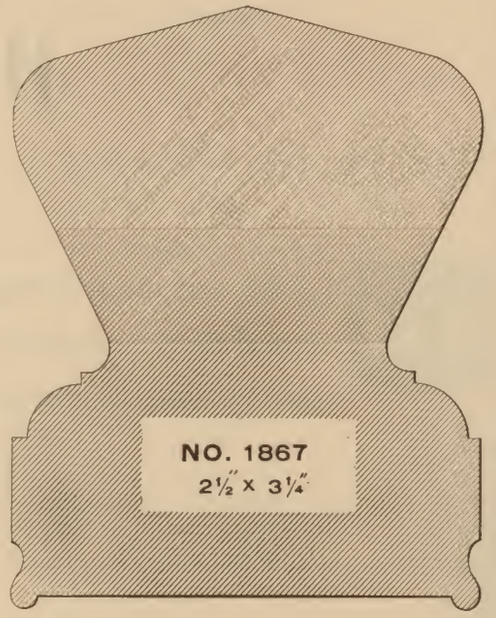


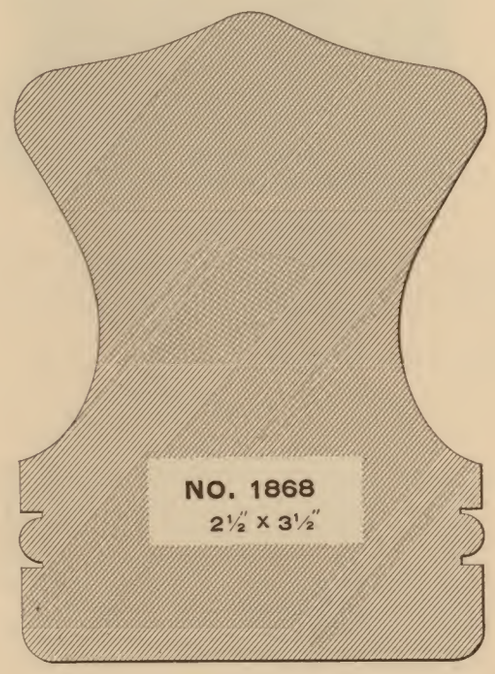


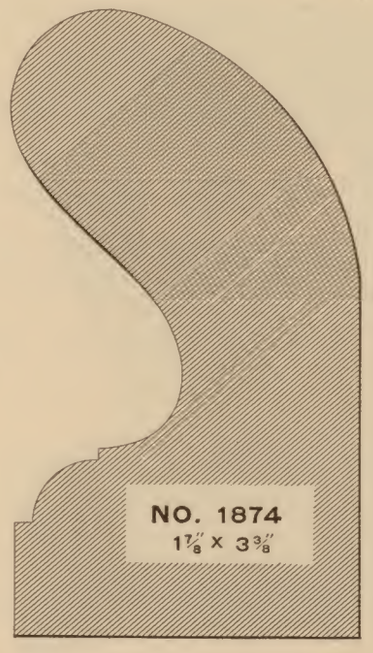


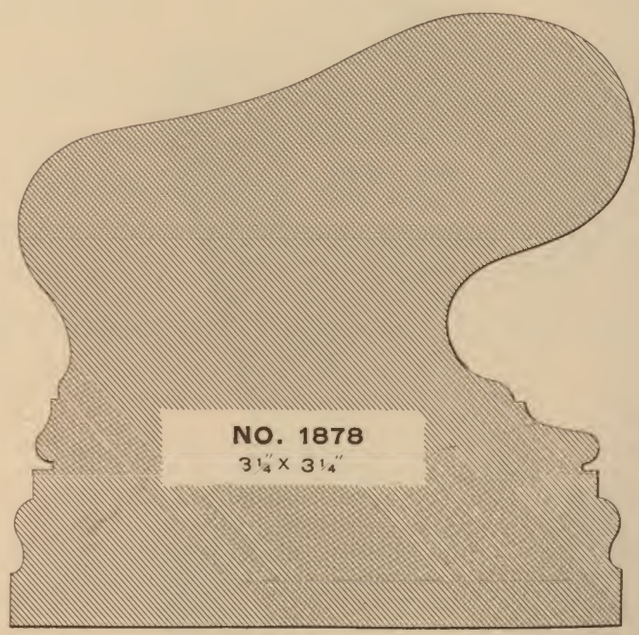




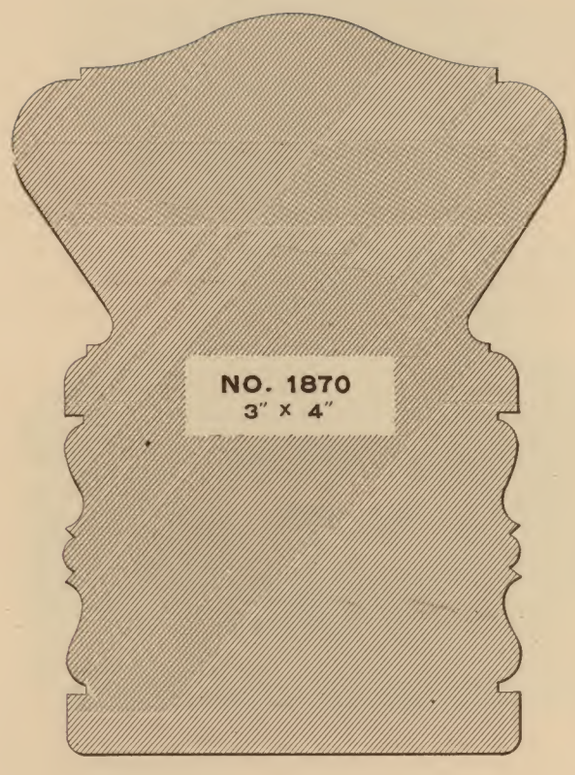


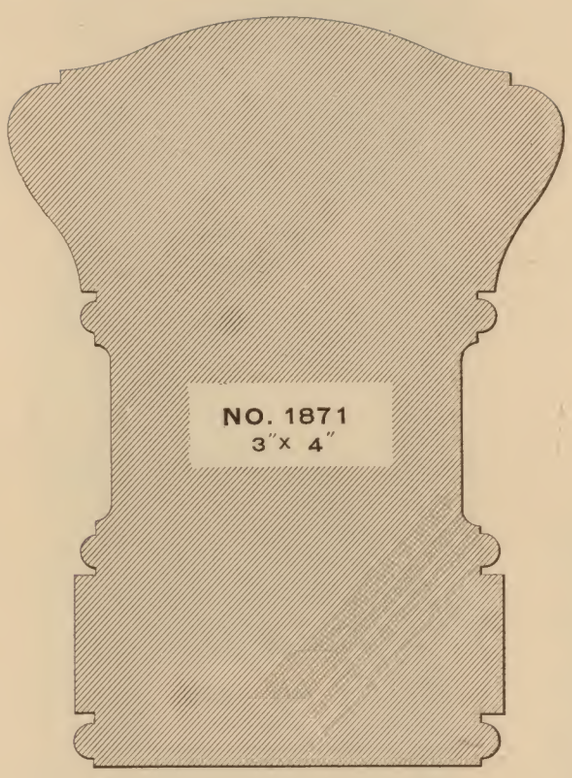




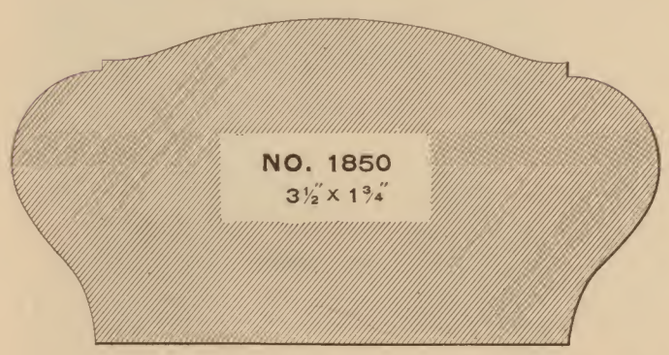


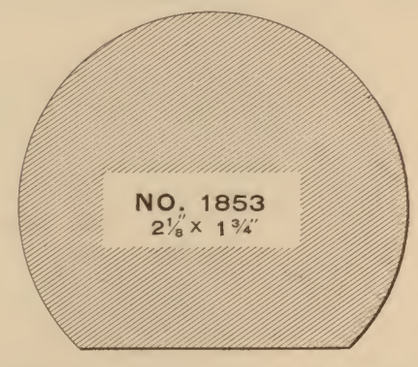
Willer Manufacturing Company's Designs for Hand-Railing.





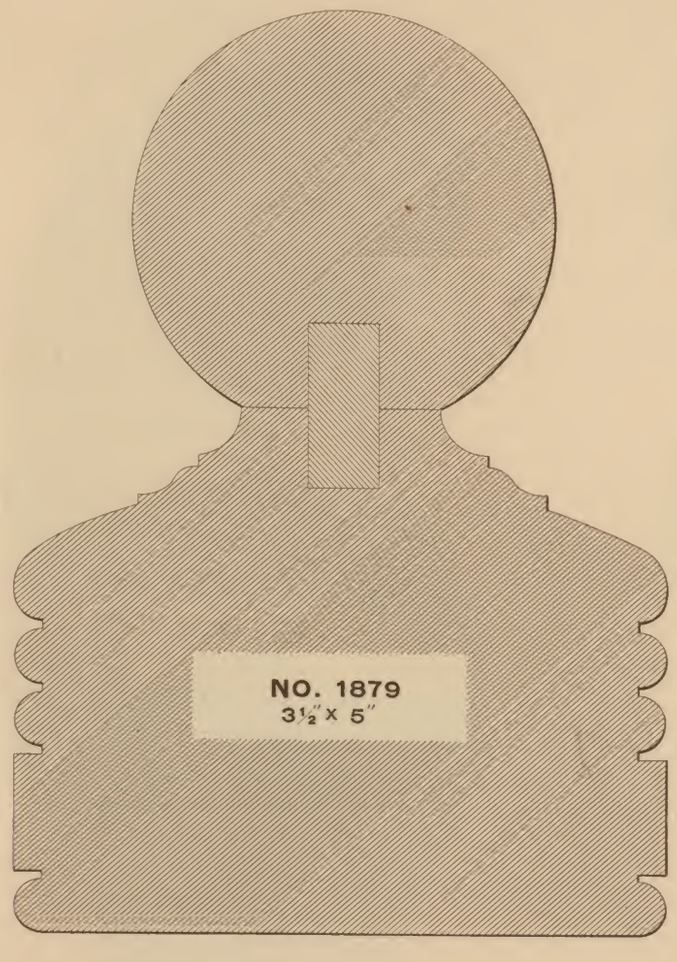




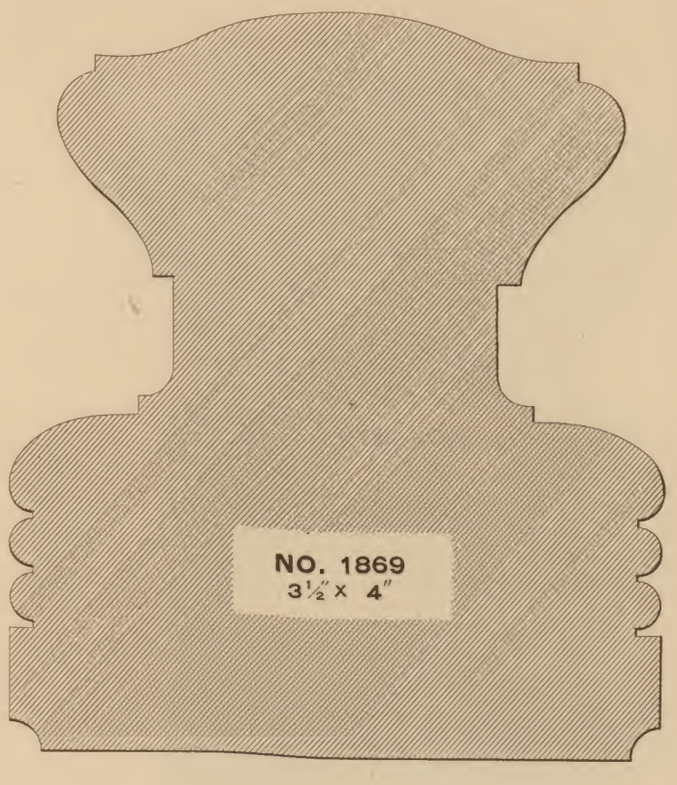


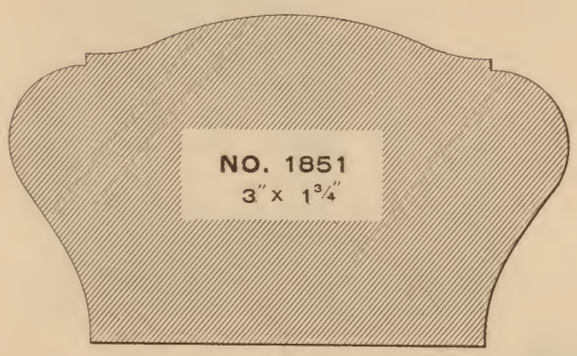


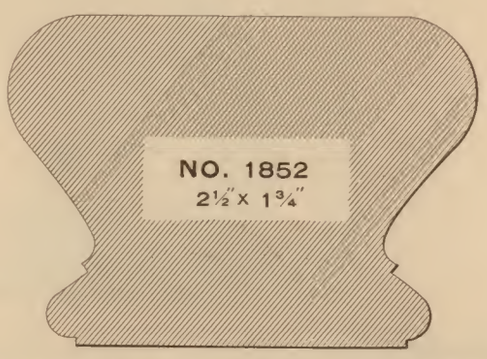
Willer Manufacturing Company's Designs for Hand-Railing.

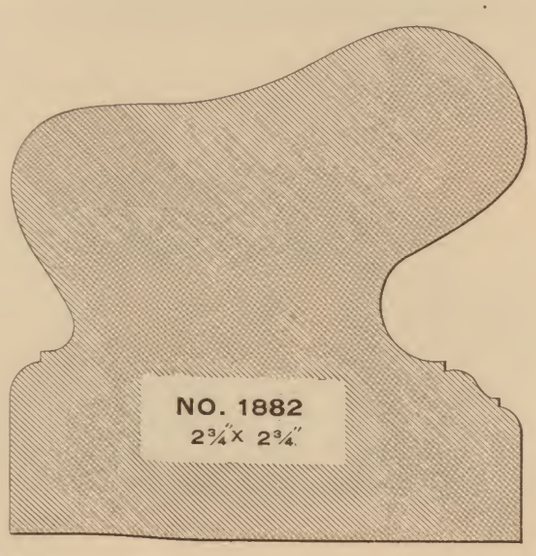




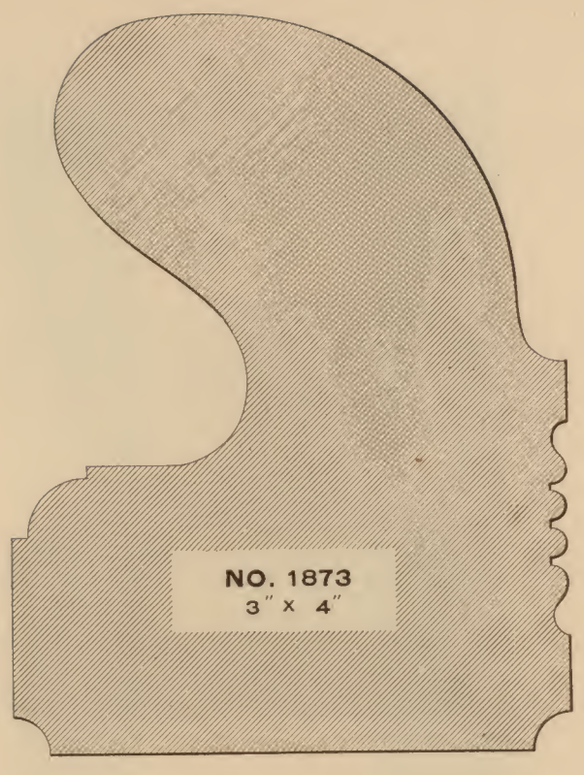


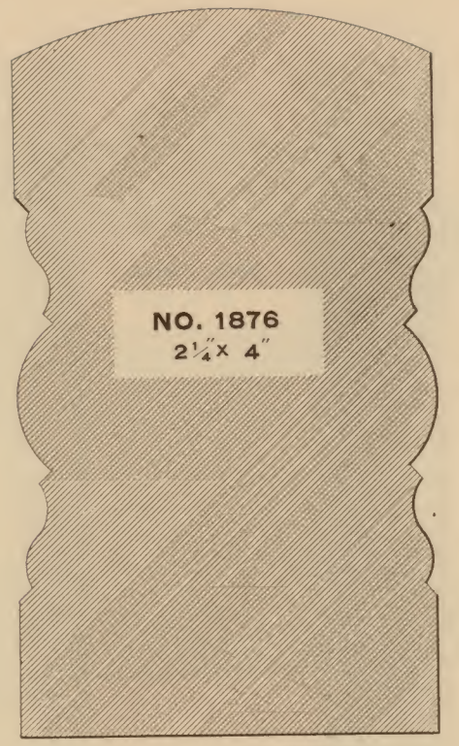


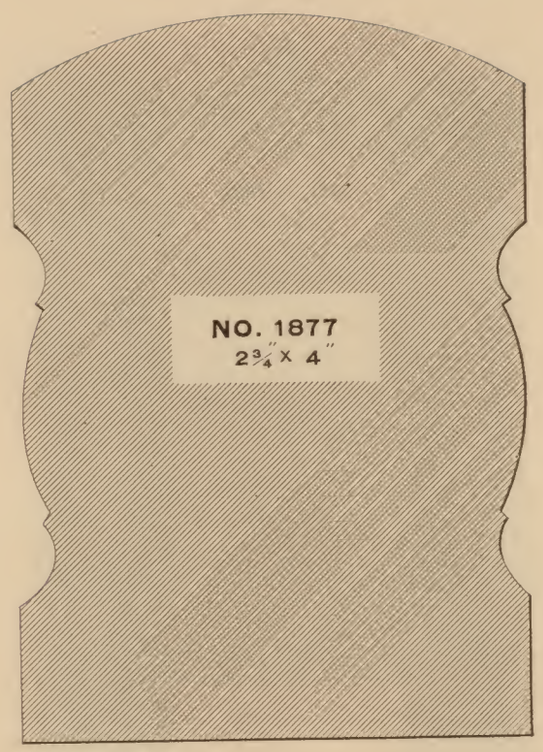


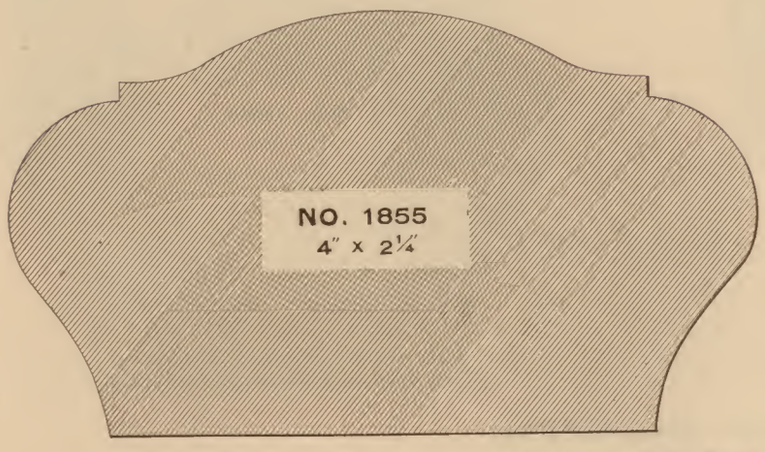


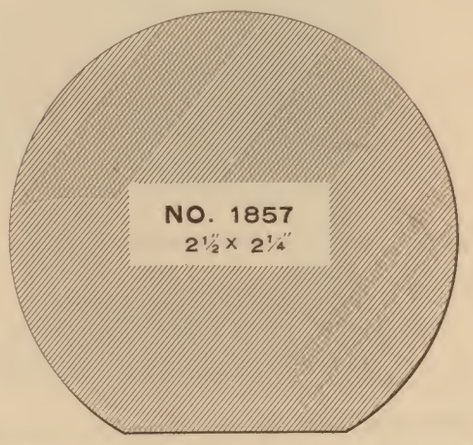
Willer Manufacturing Company's Designs for Hand-Railing.

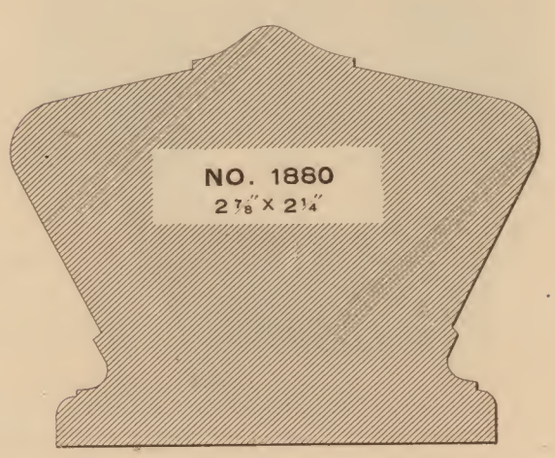




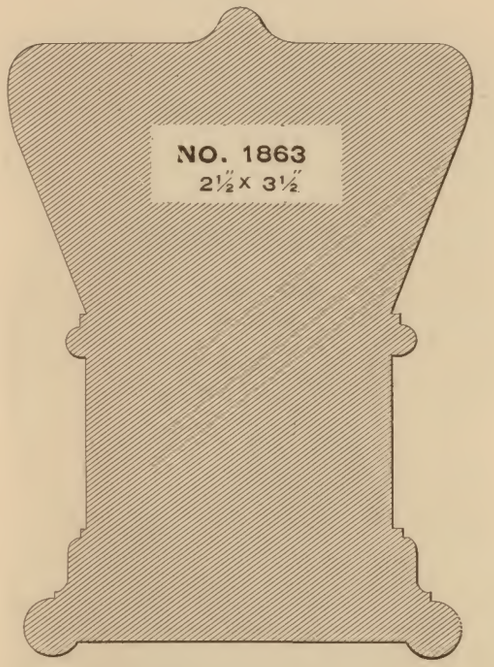


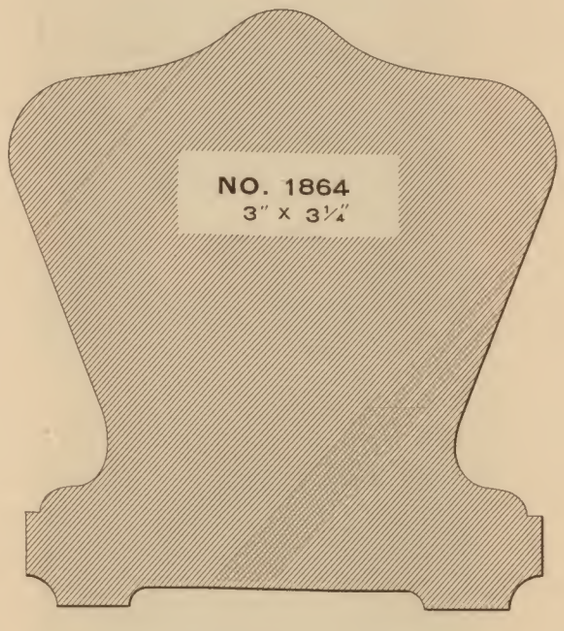


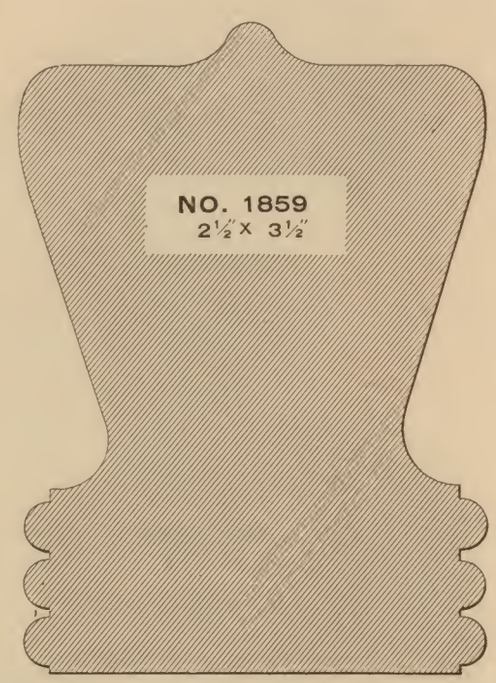


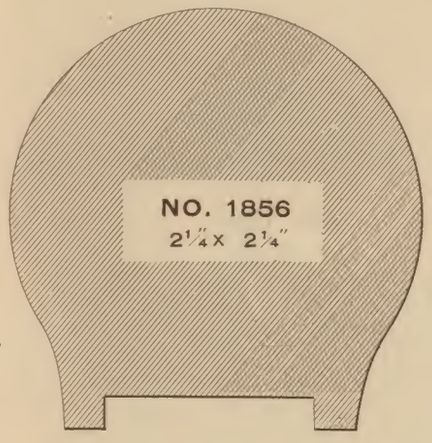


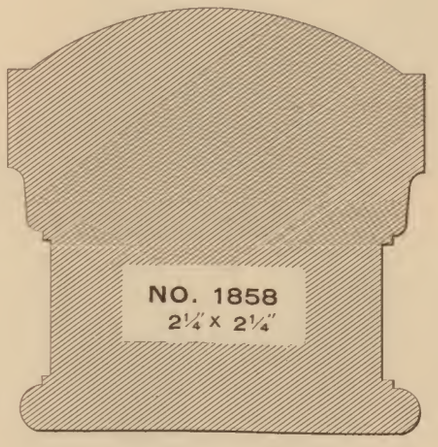
Willer Manufacturing Company's Designs for Hand-Railing.

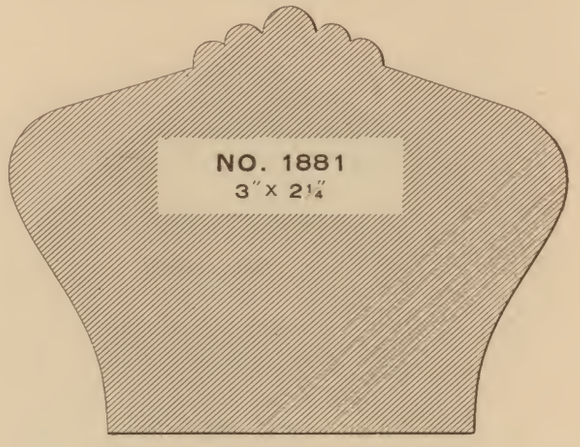








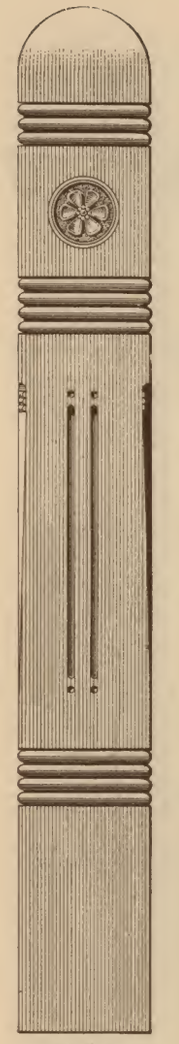




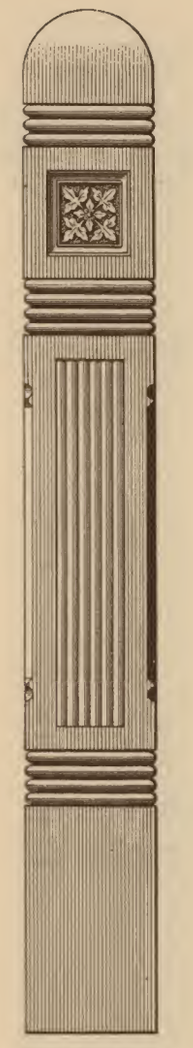
Willer Manufacturing Company's Designs for Hand-Railing.



No. 1.



No. 7.



No. 4.



No. 2.



No. 5.



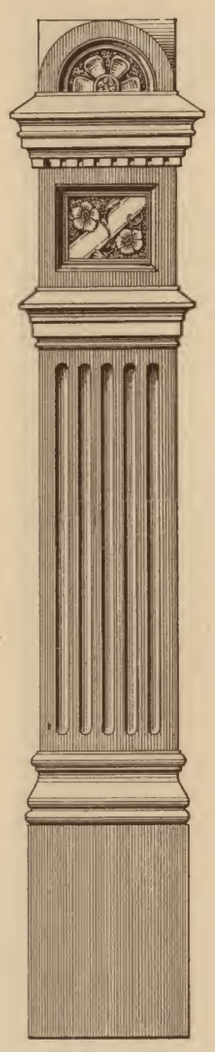
No. 3.

Willer Manufacturing Company's Designs for Newel Posts.

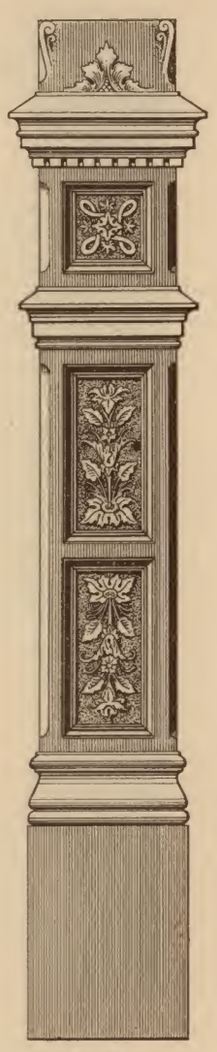
The Designs shown on this page can be made of any size from 4 x 4 up to 10 x 10. Where practicable, they will be worked "out of the solid," in other cases "glued up" on pine centres. All the ornaments shown in these Designs are of pressed end-wood. These ornaments can be of other wood than the Newel proper. Newel No. 5, for instance, can be ordered of Oak, with Cherry pressed ornaments, etc. The shafts on Newels 1, 2, 4 and 7, have chamfered corners; in Newels 3 and 5 the corners are embellished with turned bead-mouldings.

Above designs are also very suitable for landing posts in conjunction with a more elaborate design for the main Newel Post, and in such cases will be modified to suit the special requirements.

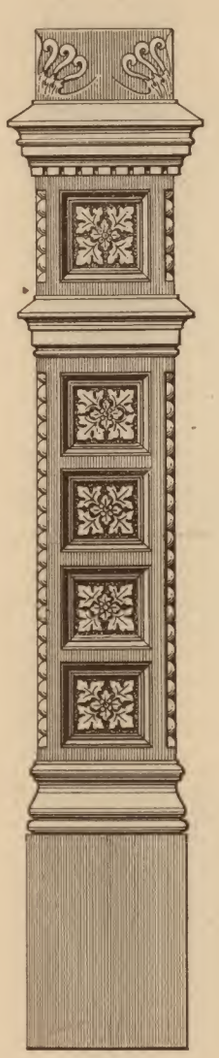
When ordering Newels separately, state whether the size given, 6 x 6, etc., is the size of the base or shaft; give height of base from bottom to first member of base-mould, and height of Newel from bottom to where centre of hand-rail will come, or else accompany order with outline sketch, with necessary dimensions marked thereon.



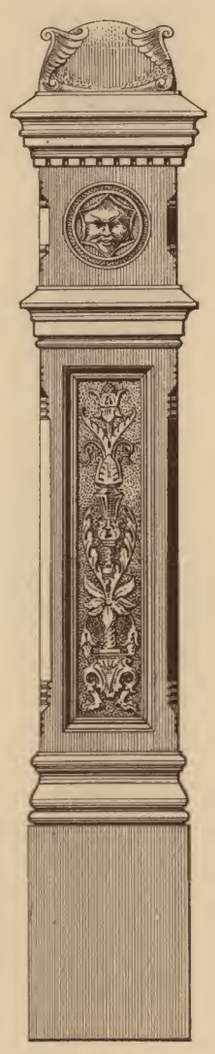
No. 8.



No. 15.



No. 10.



No. 9.



No. 16.

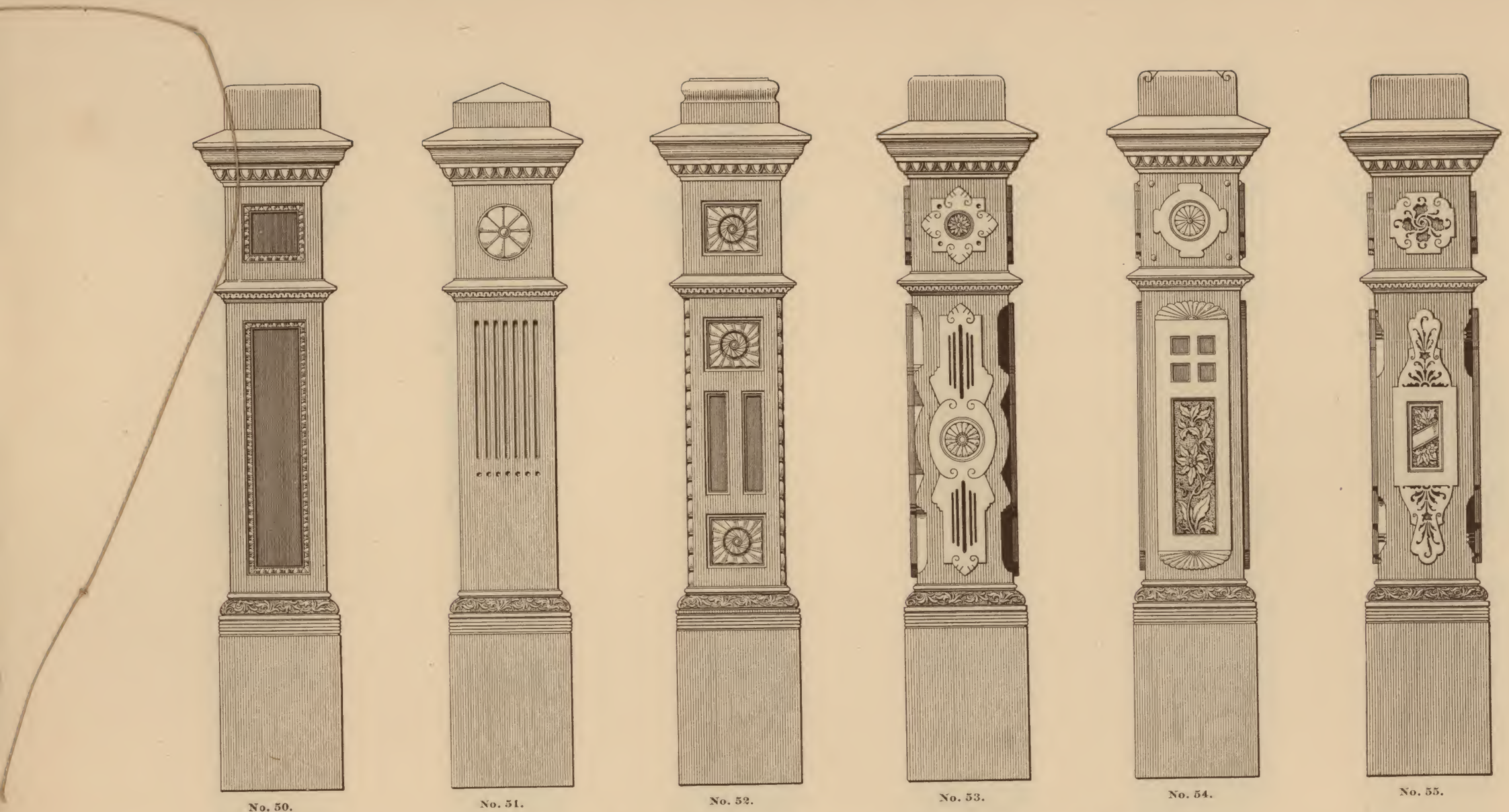


No. 14.

Willer Manufacturing Company's Designs for Newel Posts.

The Designs shown on this page are all "built up" on pine centres and can be made of any thickness from 5 x 5 up. The first Design, No. 8, has pressed natural wood ornaments on shaft and cap. The next three Designs, Nos. 15, 10 and 9, have pressed wood ornaments on shafts and hand-carved caps. The last two Designs, Nos. 16 and 14, are hand-carved throughout.

When ordering Newels separately, state whether the size given, 6 x 6, etc., is the size of the base of shaft; give height of base from bottom to first member of base-mould, and height of Newel from bottom to where centre of hand-rail will come, or else accompany order with outline sketch, with necessary dimensions marked thereon.



No. 50. No. 51. No. 52. No. 53. No. 54. No. 55.

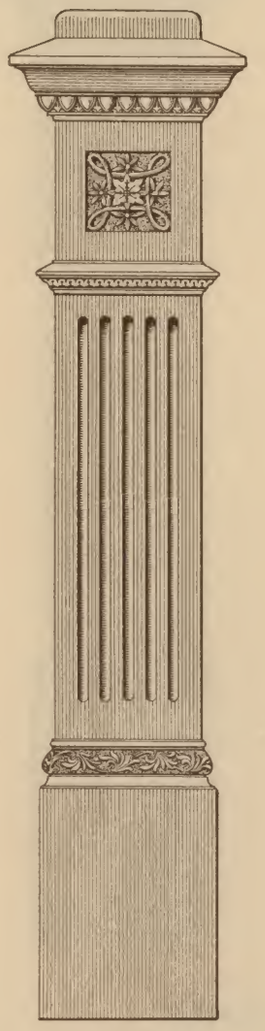
Willer Manufacturing Company's Designs for Newel Posts.

The Designs shown on this page, are all "built up" on pine centres and can be made of any thickness from 5 x 5 up. All the ornamental rosettes and panels are of pressed end-wood. All the mouldings are machine-pressed of ornamental design. The panels in Nos. 53, 54 and 55, are scroll-sawed when not otherwise ordered, but can also be furnished hand-carved upon special order. The panels shown in No. 50, are surrounded by a turned bead-moulding.

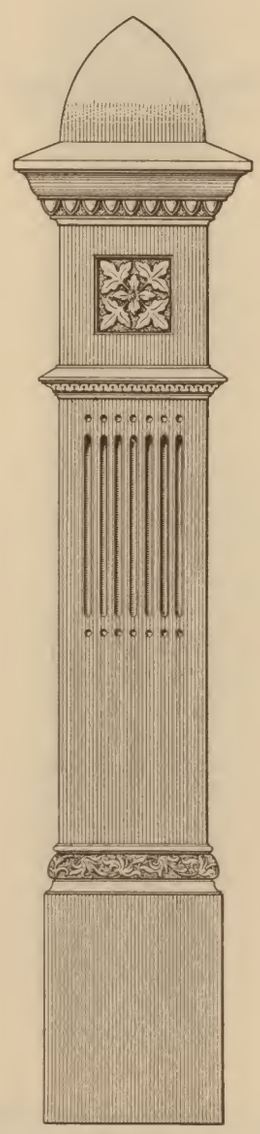
When ordering Newels separately, state whether the size given, 6 x 6, etc., is the size of the base or shaft; give height of base from bottom to first member of base-mould, and height of Newel from bottom to where centre of hand-rail will come, or else accompany order with outline sketch, with necessary dimensions marked thereon.



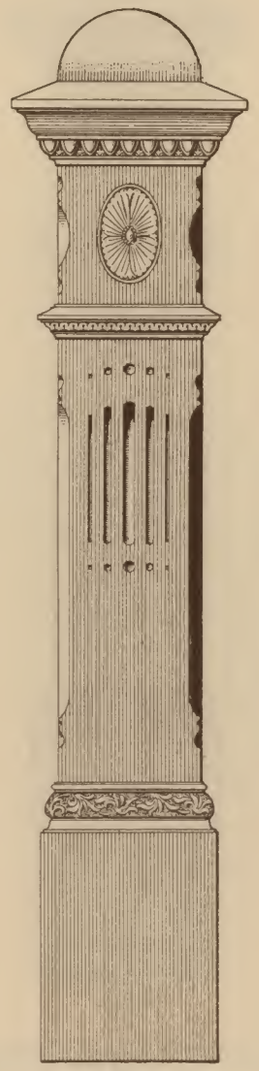
No. 40.



No. 41.



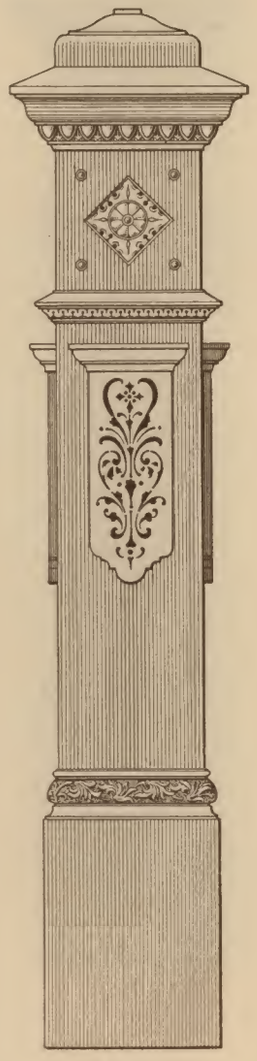
No. 42.



No. 43.



No. 44.



No. 45.

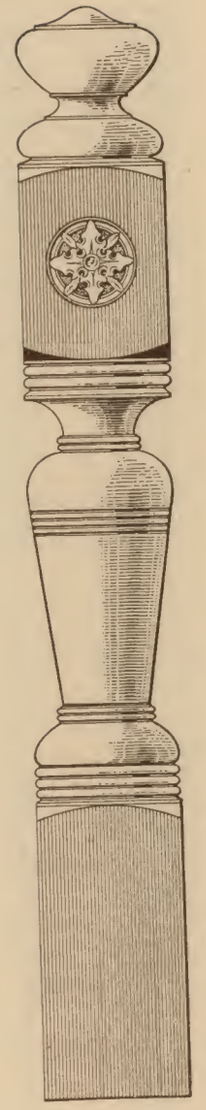
Willer Manufacturing Company's Designs for Newel Posts.

The Designs shown on this page are all "built up" on pine centres and can be made of any thickness from 5 x 5 up. All the ornamental rosettes are of pressed end-wood. All the mouldings are machine-pressed of ornamental design. The panels in Nos. 44 and 45, are scroll-sawed when not otherwise ordered, but can also be furnished hand-carved upon special order.

When ordering Newels separately, state whether the size given, 6 x 6, etc., is the size of the base or shaft; give height of base from bottom to first member of base-mould, and height of Newel from bottom to where centre of hand-rail will come, or else accompany order with outline sketch, with necessary dimensions marked thereon.



No. 30.



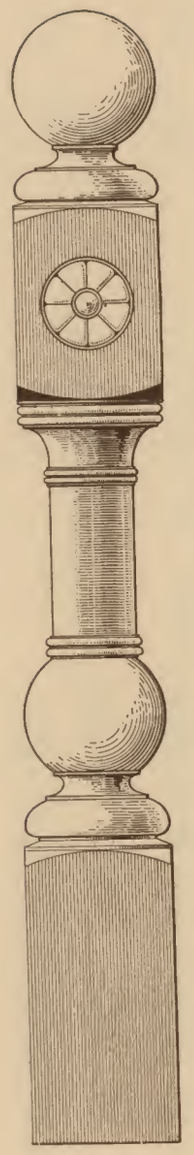
No. 31.



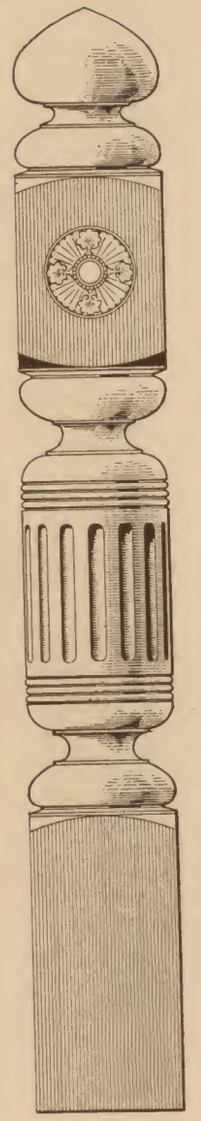
No. 32.



No. 33.



No. 34.

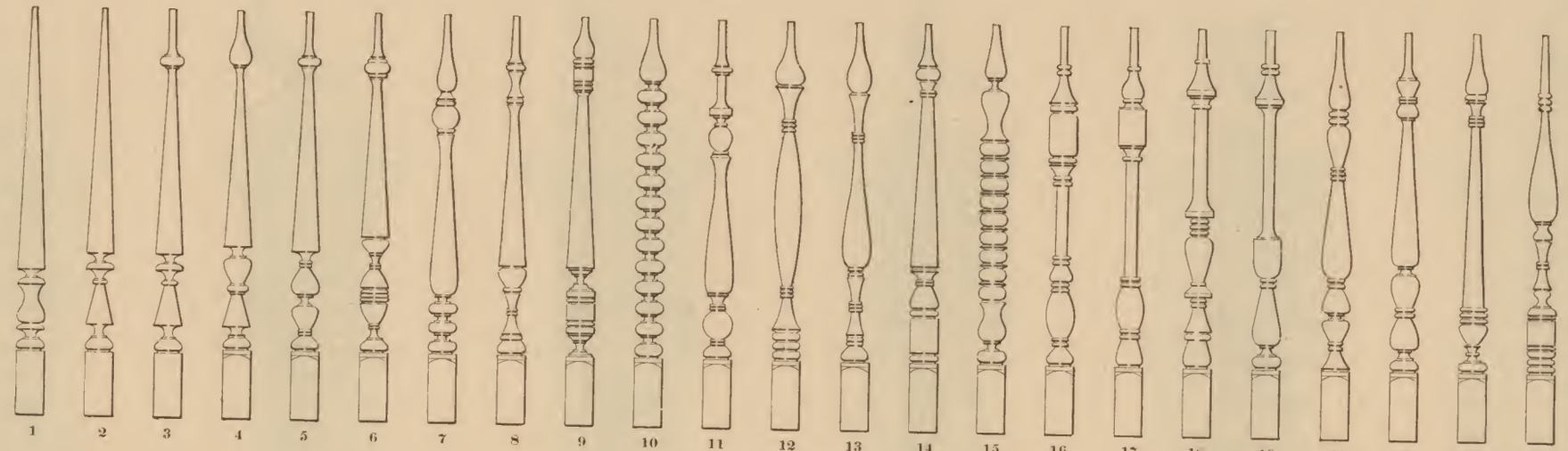


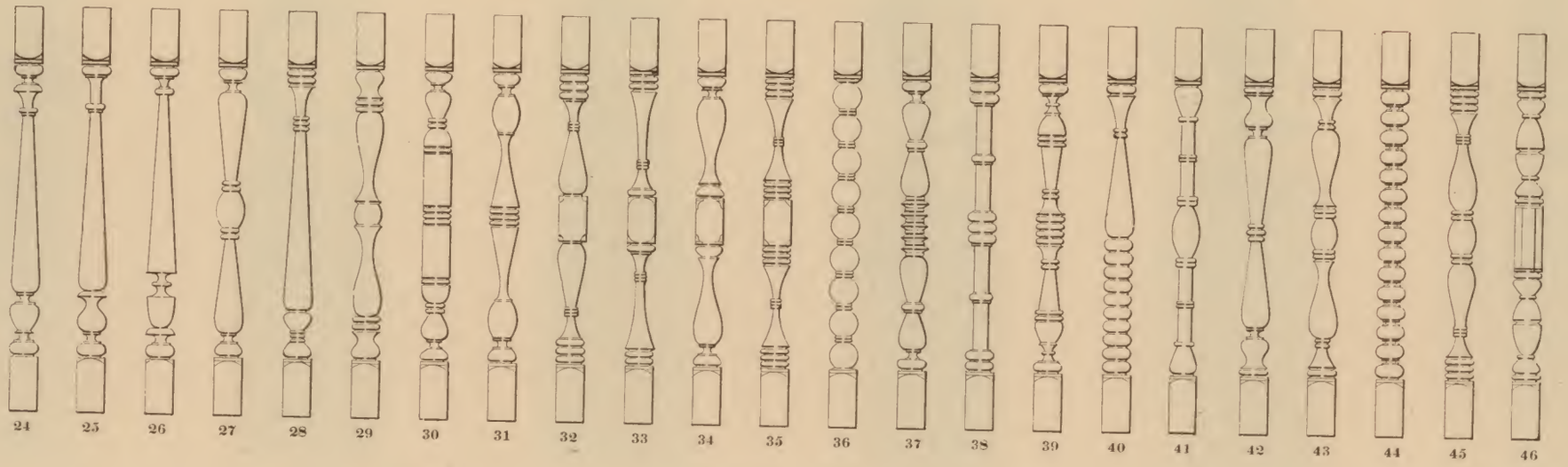
No. 35.

Willer Manufacturing Company's Designs for Newel Posts.

The above Designs can be made of any size from 4 x 4 up. Where practicable, they will be worked "out of the solid," in other cases "glued up" on pine centres. All are hand-turned, with square base and square top for hand-rail to butt against. All rosettes in above Designs are of pressed end-wood.

When ordering Newels separately, state whether the size given, 6 x 6, etc., is the size of the base or shaft; give height of base from bottom to first member of base-mould, and height of Newel from bottom to where centre of hand-rail will come, or else accompany order with outline sketch, with necessary dimensions marked thereon.

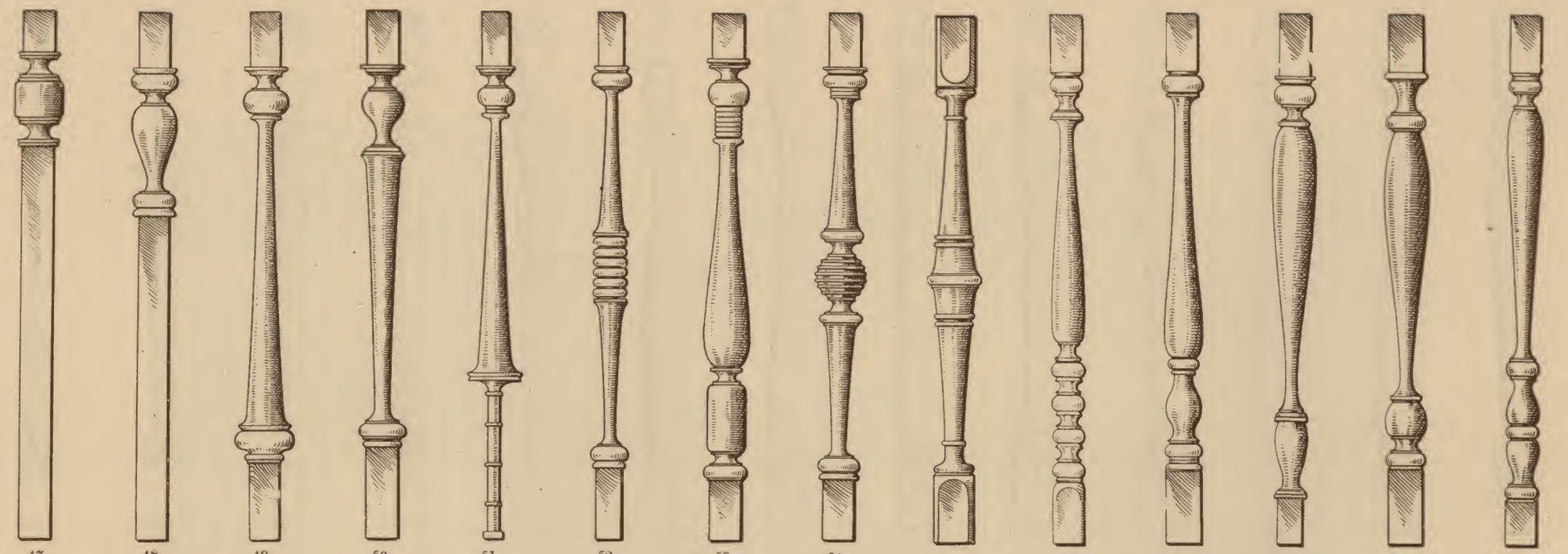




Willer Manufacturing Company's Original Designs for Stair Balusters.

(Copyrighted.)

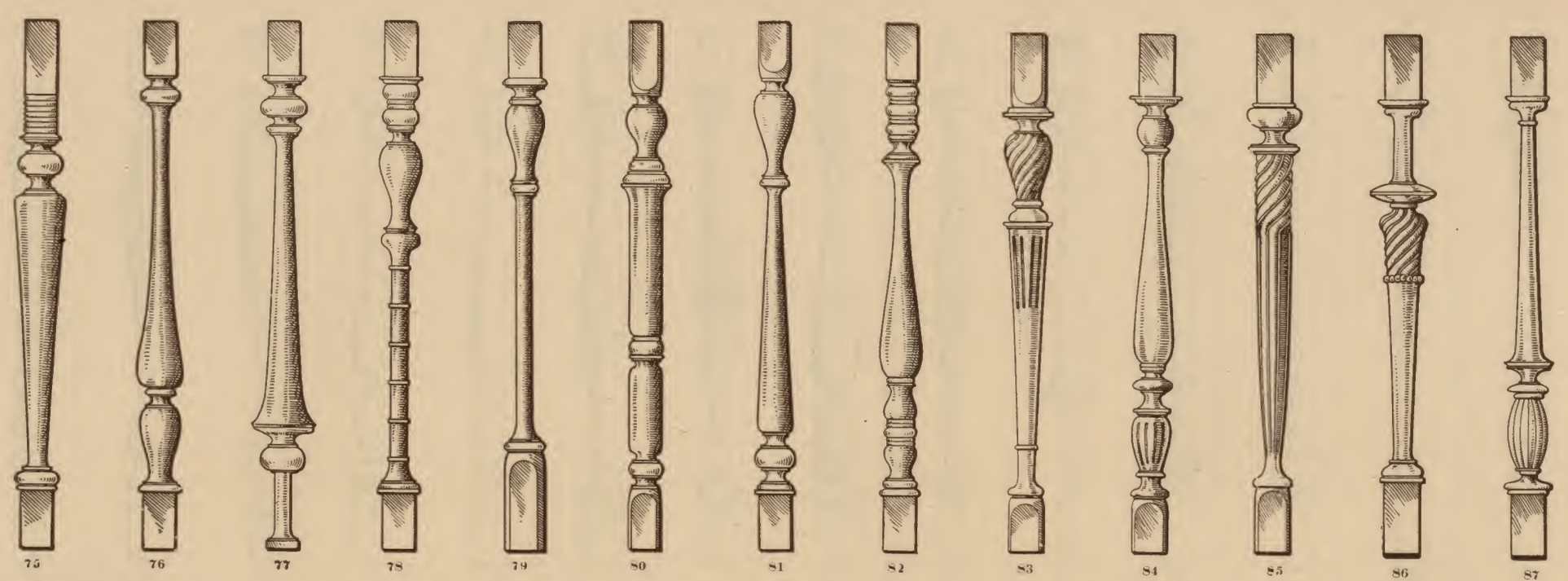
All these Balusters are hand-turned and can be made of any thickness, length, and of any kind of wood. Prices upon application.



Willer Manufacturing Company's Original Designs for Stair Balusters.

(Copyrighted.)

All these Balusters are hand-turned and can be made of any thickness, length, and of any kind of wood. Prices upon application.



Willer Manufacturing Company's Original Designs for Stair Balusters.

(Copyrighted.)

All these Balusters are hand-turned and where any carving is shown, hand-carved, and can be made of any thickness, length, and of any kind of wood. Prices upon application.



Walter A. Holbrook, Architect.

Stairs and Hall Finish in Residence of Wm. H. Keepers, Milwaukee, Wis.
Built and put up by Willer Manufacturing Co.



Sketches of Stairs put up in Milwaukee, Wis., by Willer Manufacturing Co.

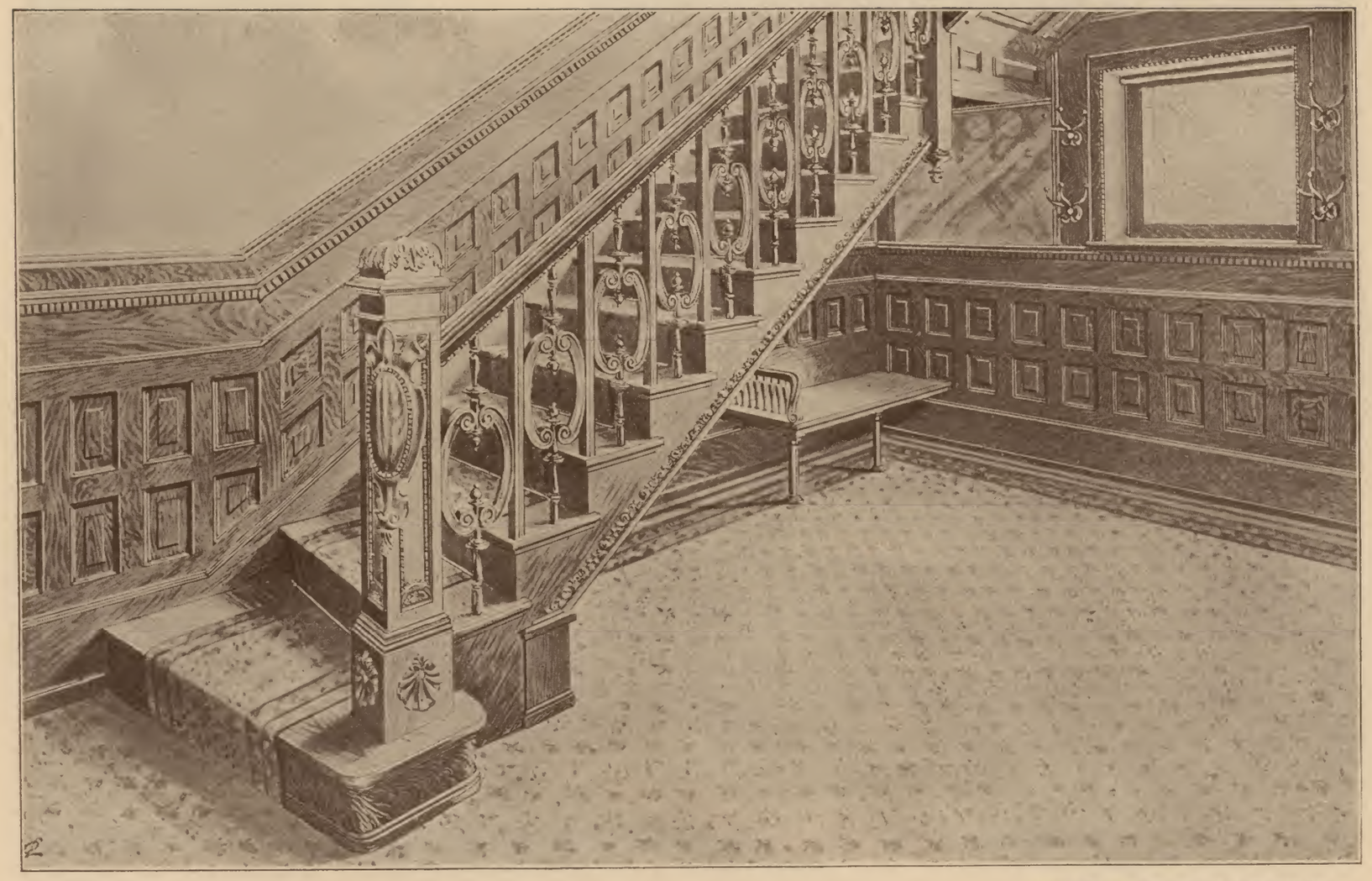


C. F. Bulger, Galveston, Texas, Architect.

Stairs and Hall Finish in the Residence of Mr. J. H. Hutchings, of Ball, Hutchings & Co., Bankers, Galveston, Texas. Built by Willer Manufacturing Co.

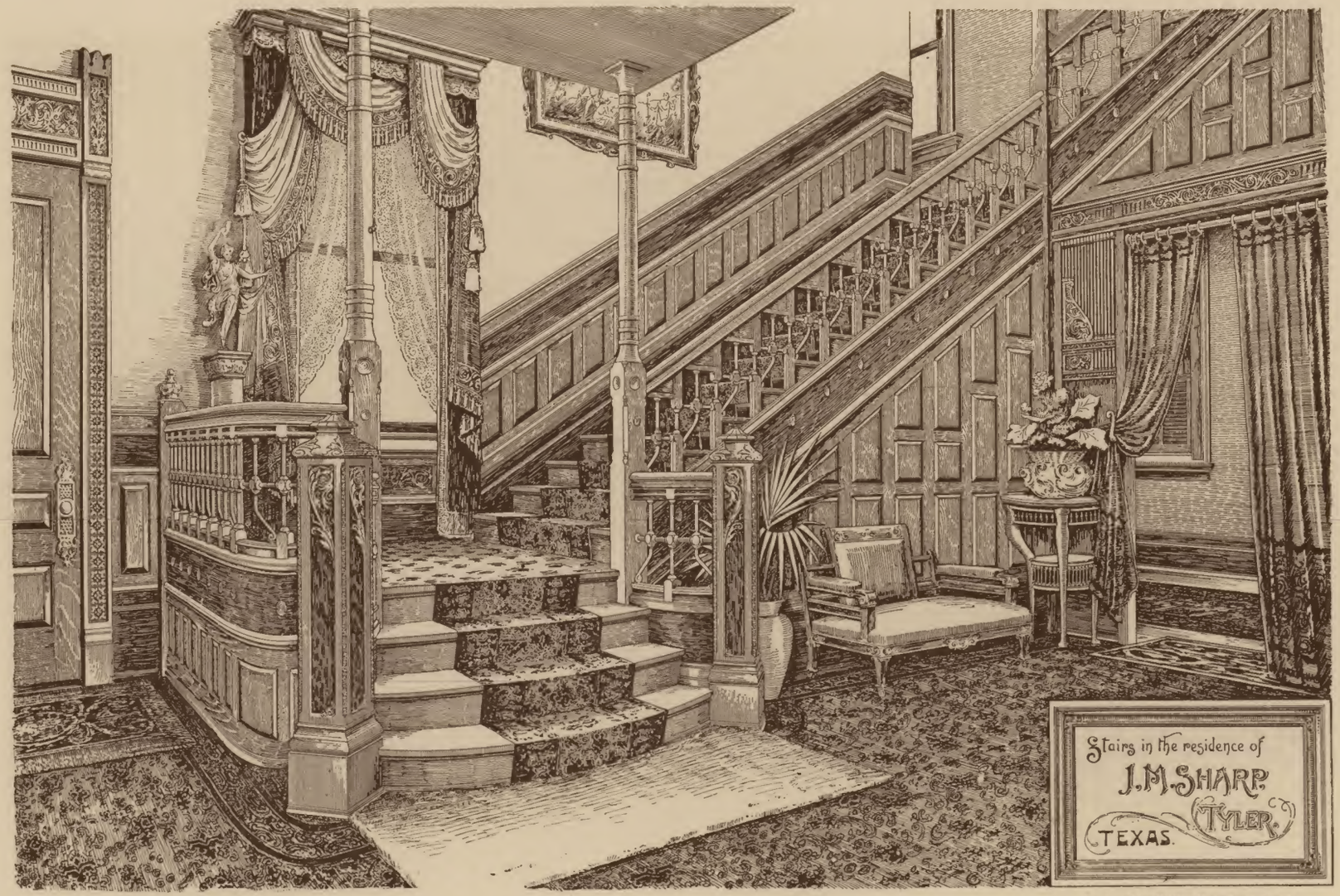


Sketches of Stairs in the Residences of Messrs. William and Henry E. Willer.
Built and put up by Willer Manufacturing Co., Milwaukee, Wis.



Crane & Barkhausen, Architects, Milwaukee, Wis.

Stairs in the Residence of Mr. Conrad Trimborn, 1428 Cedar Street, Milwaukee, Wis.
Built and put up by Willer Manufacturing Co.



Designed by Willer Manufacturing Co.

Stairs in the Residence of Mr. J. M. Sharp, Tyler, Texas.
Built by Willer Manufacturing Co.



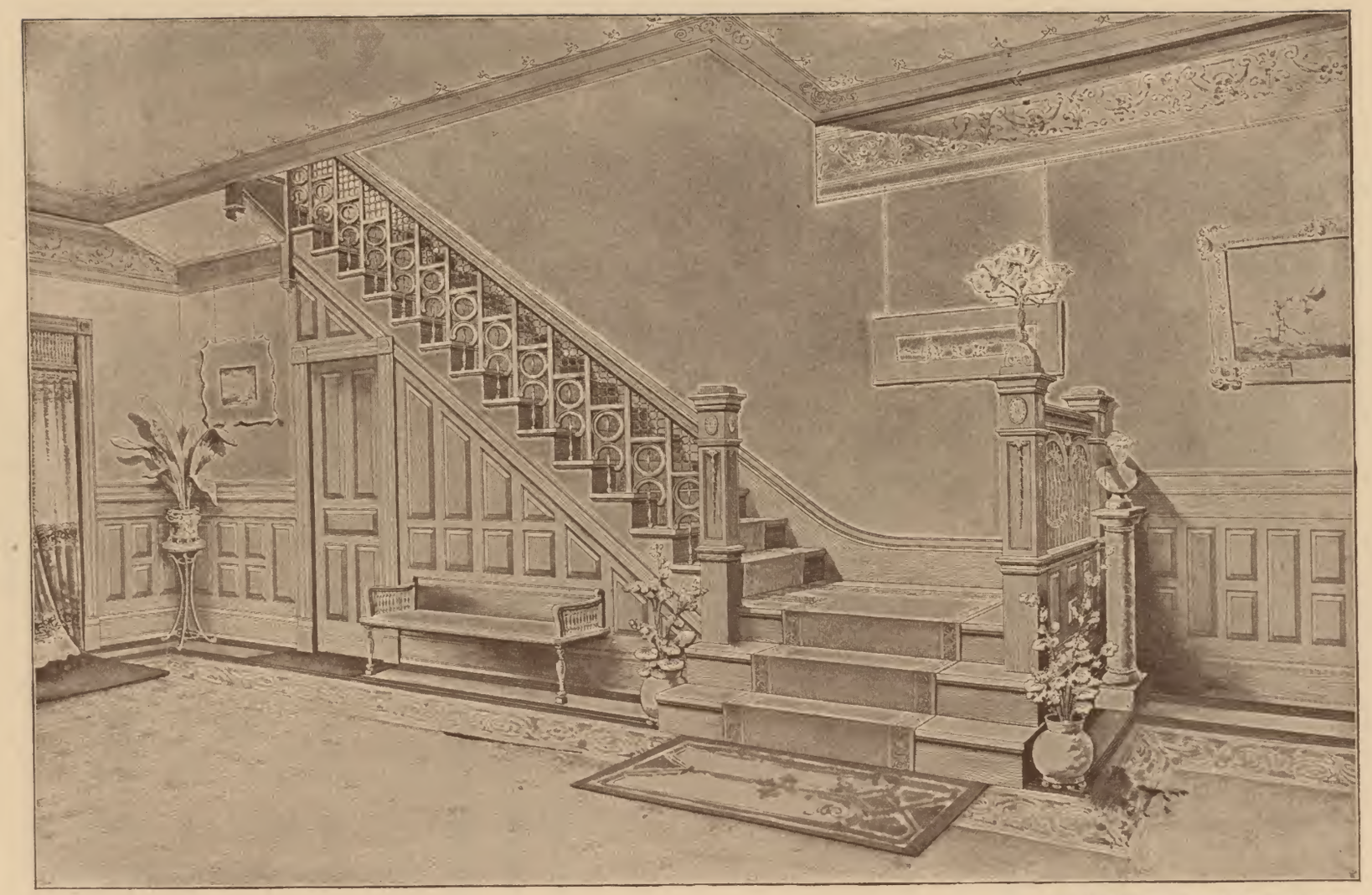
Crane & Barkhausen, Architects, Milwaukee, Wis.

Stairs in the Residence of Mr. Chas. D. Crane, Milwaukee, Wis.
Built and put up by Willer Manufacturing Co.



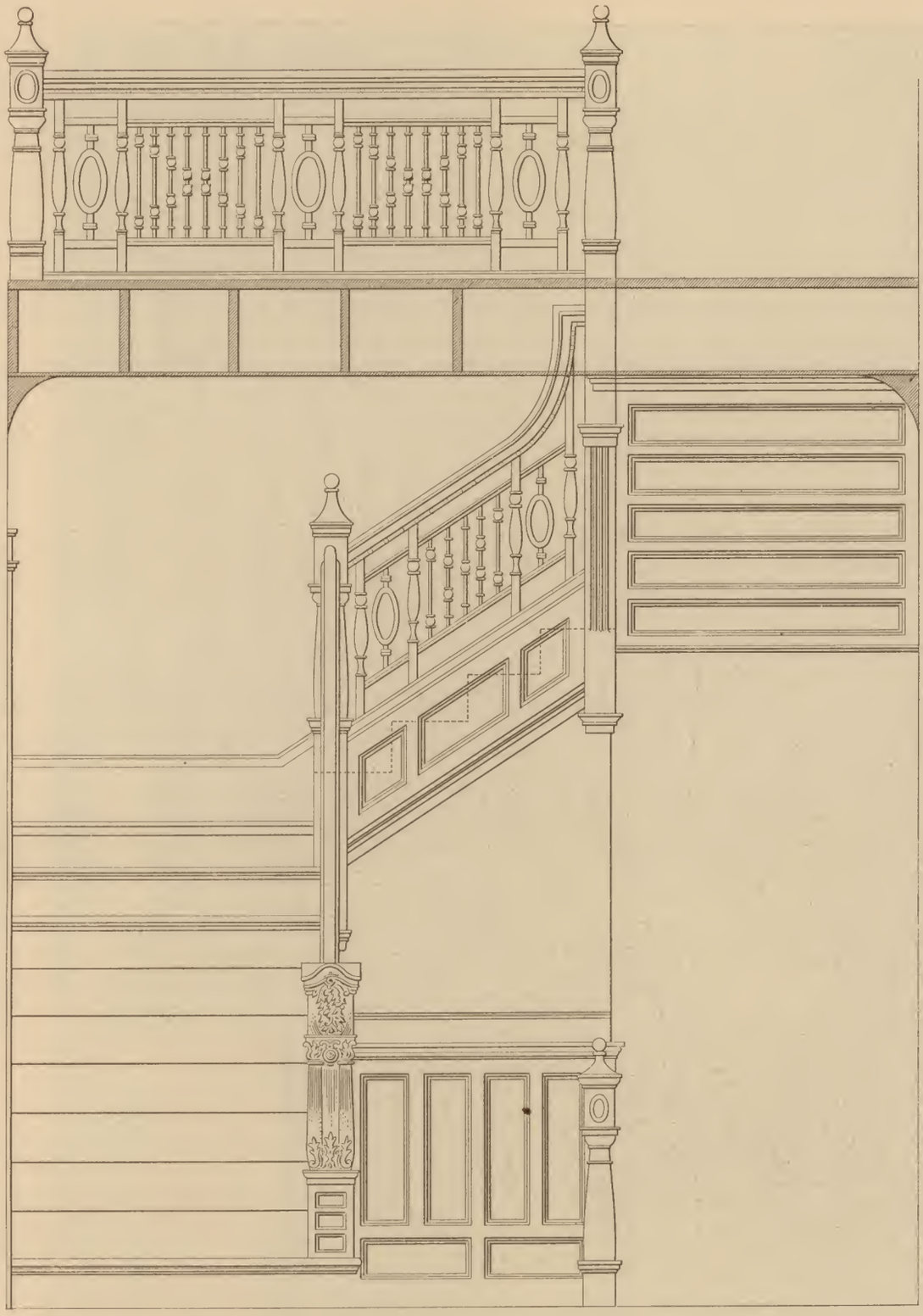
Ferry & Clas, Architects, Milwaukee, Wis.

Stairs in the Residence of Mr. Peter Posson, Milwaukee, Wis.
Built and put up by Willer Manufacturing Co.

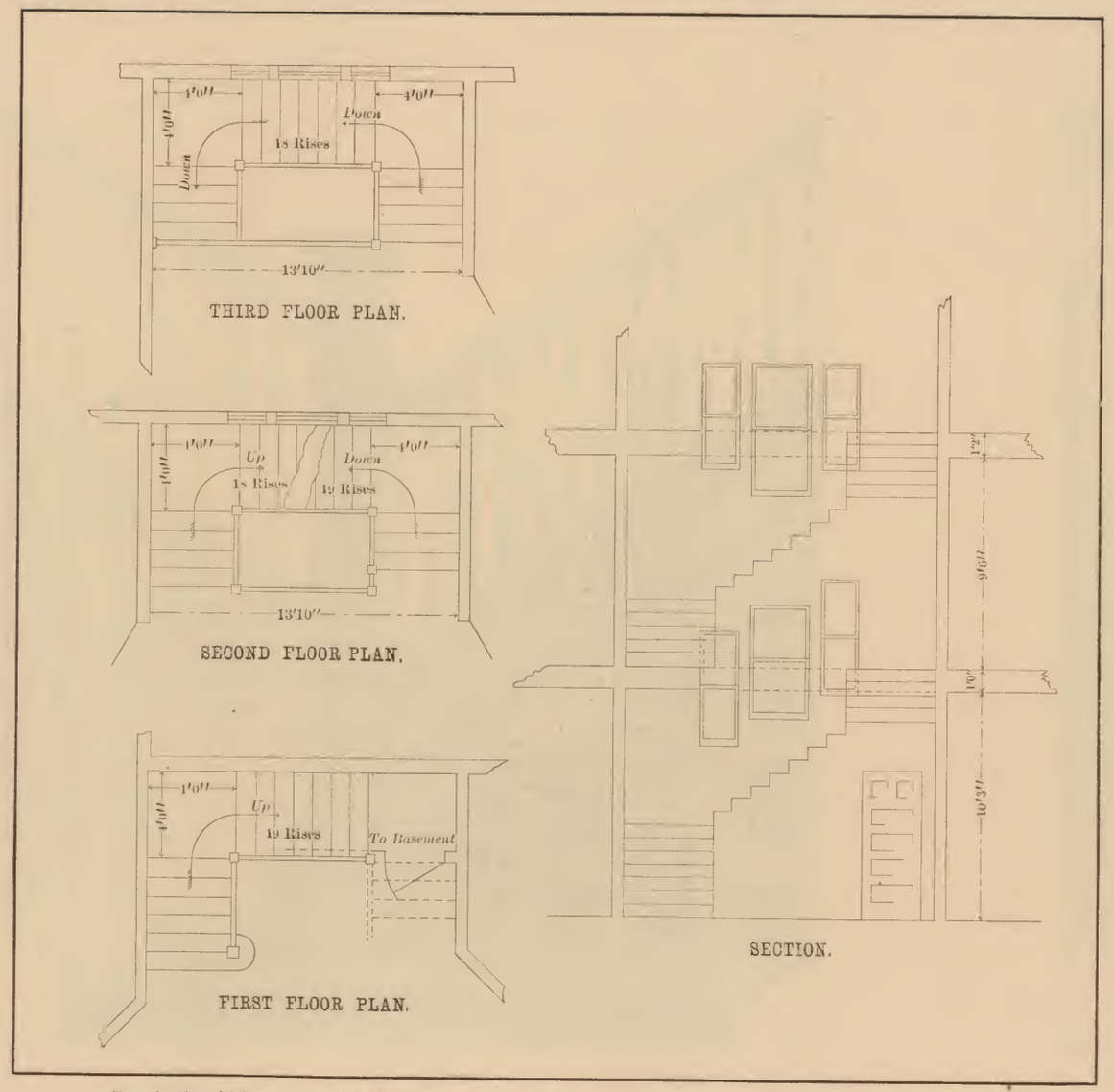


Crane & Barkhausen, Architects, Milwaukee, Wis.

Stairs in the Residence of Mr. Robert Reinhard, Milwaukee, Wis.
Built and put up by Willer Manufacturing Co.



Copy of an Architects' Sketch for a Stair Case we have built and put up in a Milwaukee Residence.



Fac-simile of Plan sent us by Mr. Hoopes, reduced in size to accommodate the space in this catalogue.

REQUESTS FOR PRICES
ON COMPLETE STAIR-WORK

must always be accompanied by a ground plan of the stairs. This can easily be traced from the general floor plans of the building, or a copy may be made therefrom.

We reproduce herewith Plans of stairs and letter accompanying the same, received from Wm. G. Hoopes, Atlantic City, N. J., showing the proper way in which such requests should be made.

(COPY.)

WM. G. HOOPES, ARCHITECT.
ROOM NO. 41, REAL ESTATE AND LOAN BUILDING,
P. O. BOX 20.

ATLANTIC CITY, N. J., June 26th, 1894.

Willer Manufacturing Co., Milwaukee, Wis.

GENTLEMEN:—I enclose herewith plan and elevation of a stair-case I am about to erect. Please give me your price delivered here, of the following stair cases as per your catalogue numbers (Catalogue No. 9,) including Newels, Rails and Balusters, in quarter-sawed Red or White Oak, one coat Filler and one coat Shellac, Nos. 43, 47, 56 and 111. Respectfully,

(Signed) WM. G. HOOPES.

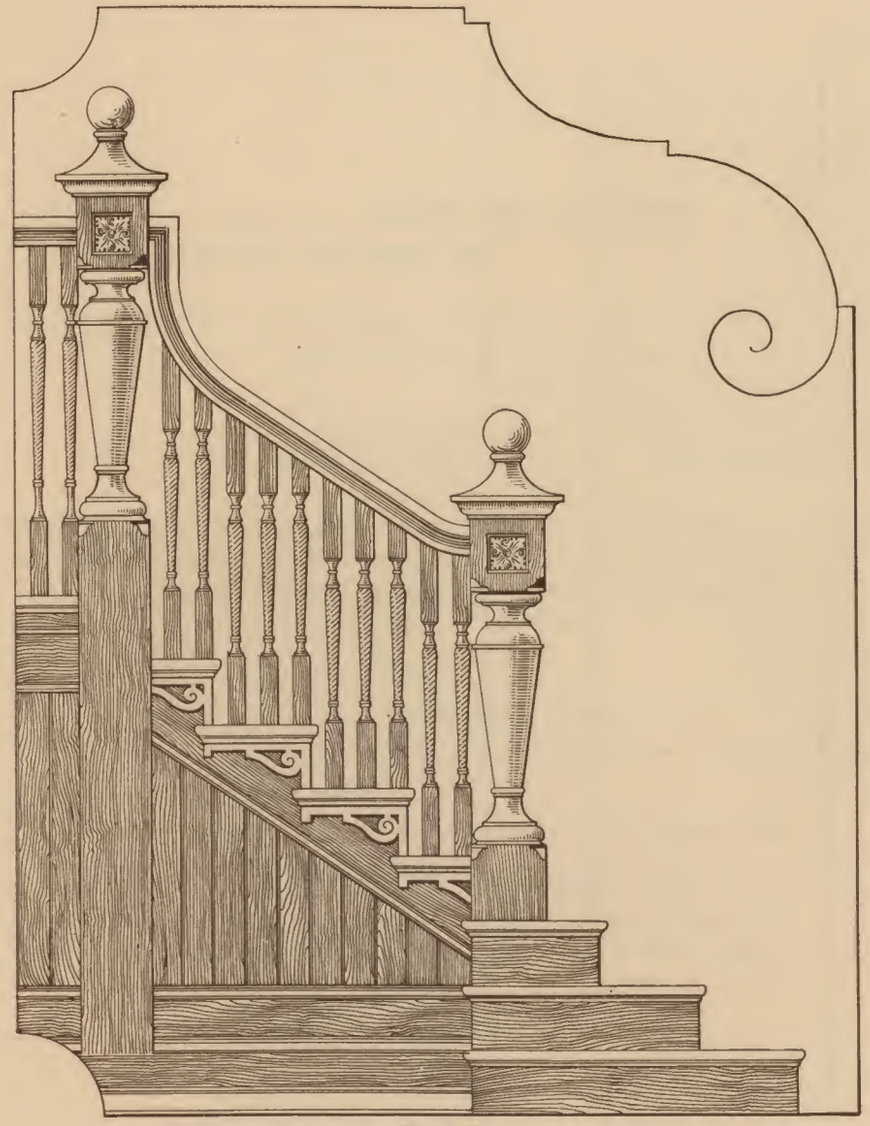


Fig. 500.

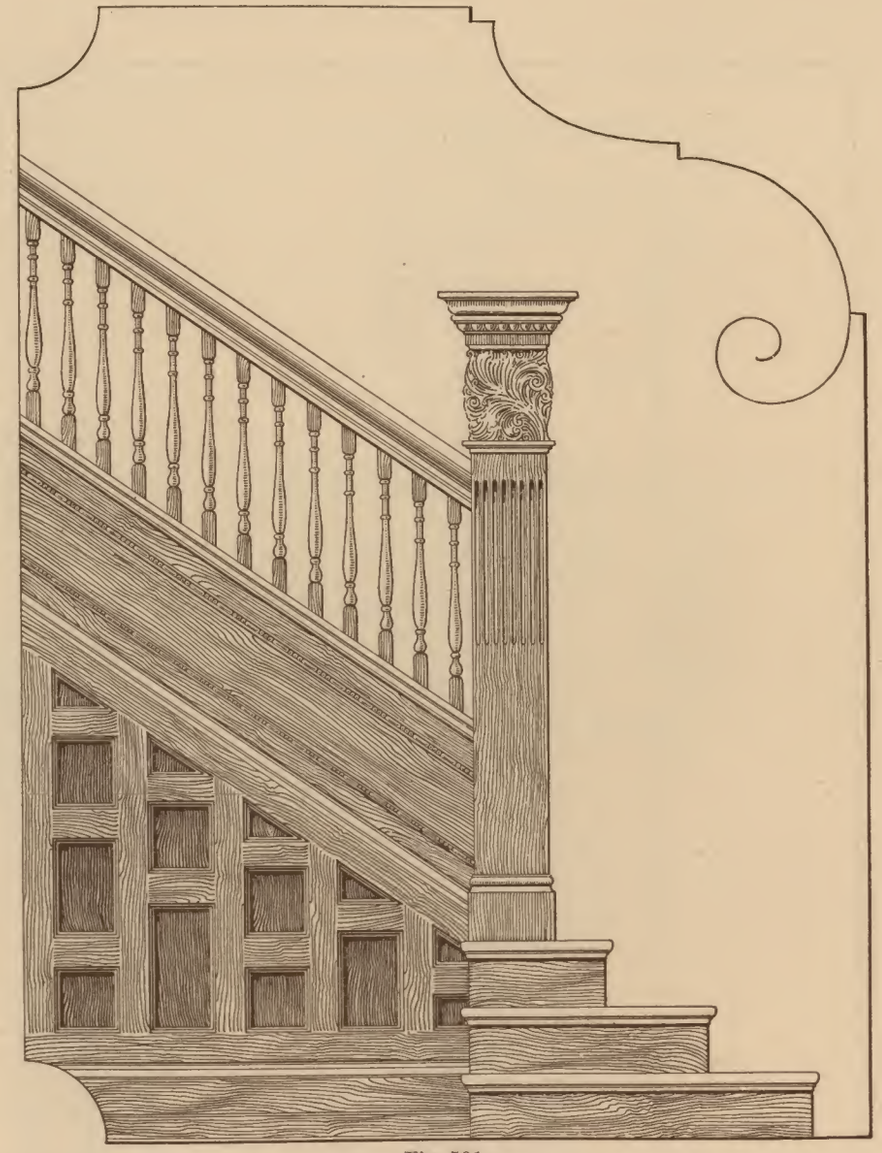


Fig. 501.

Willer Manufacturing Company's Original Designs for Stair Cases.

(Copyrighted.)

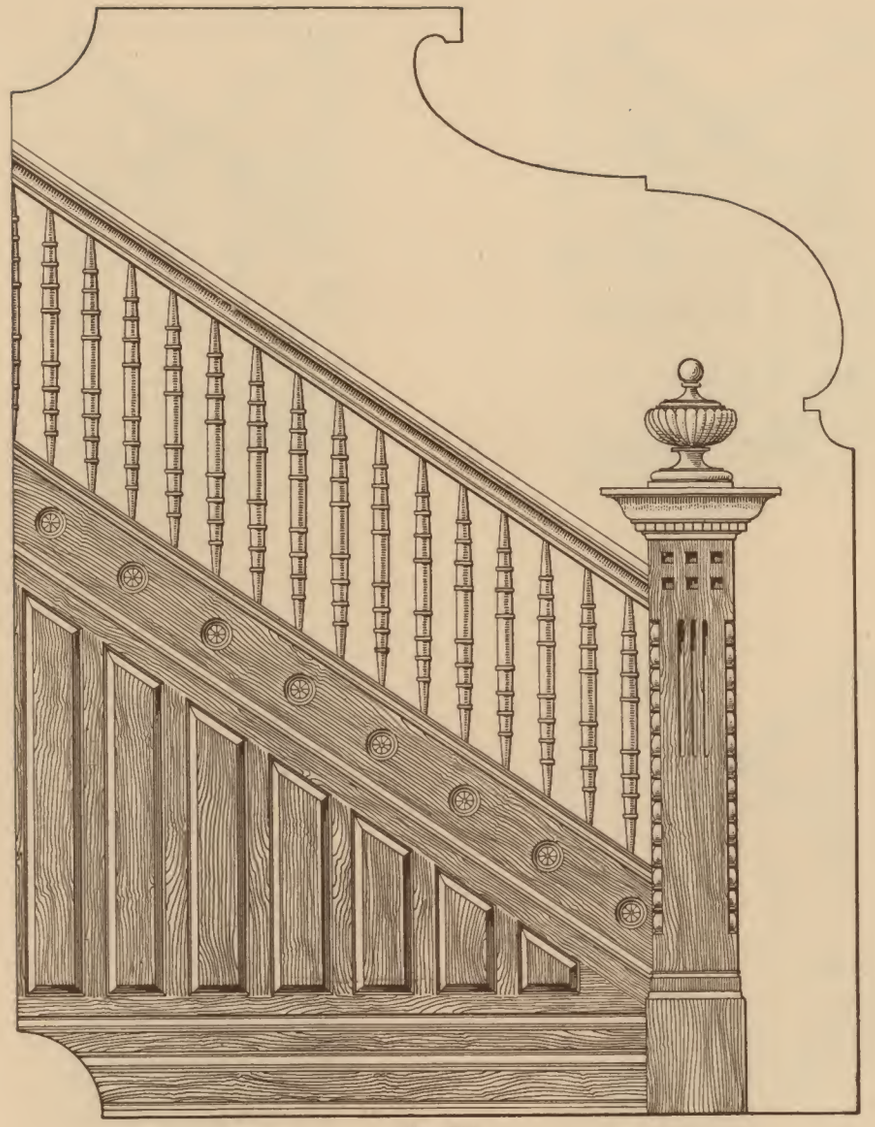


Fig. 502.

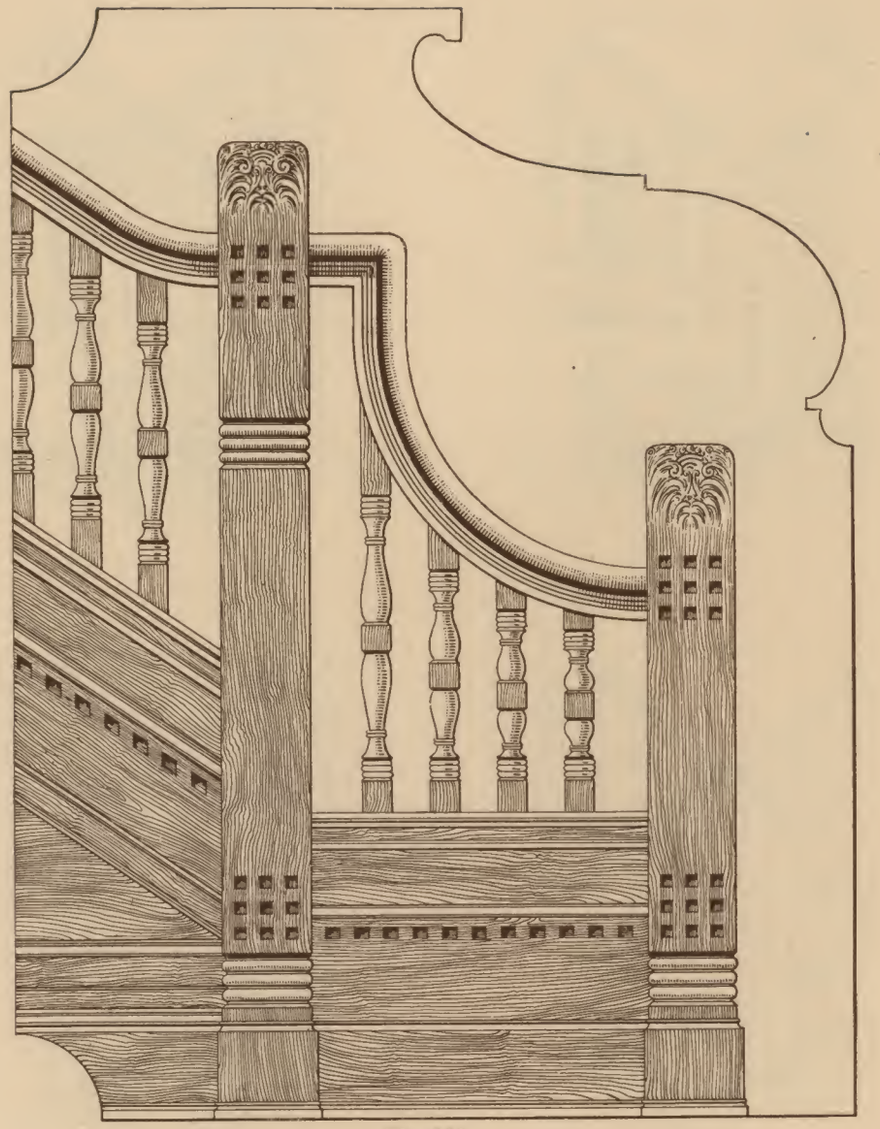


Fig. 503.

Willer Manufacturing Company's Original Designs for Stair Cases.

(Copyrighted.)

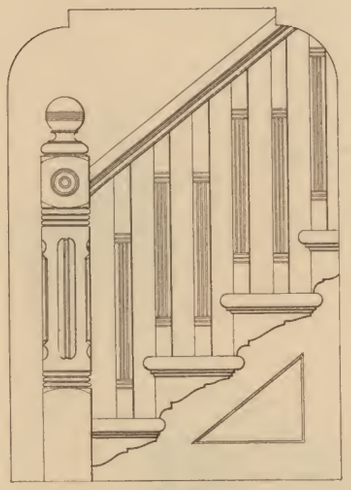


Fig. 504.

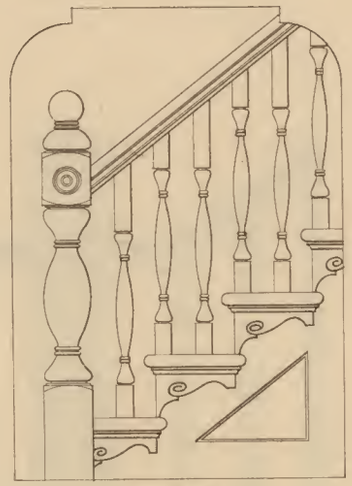


Fig. 505.

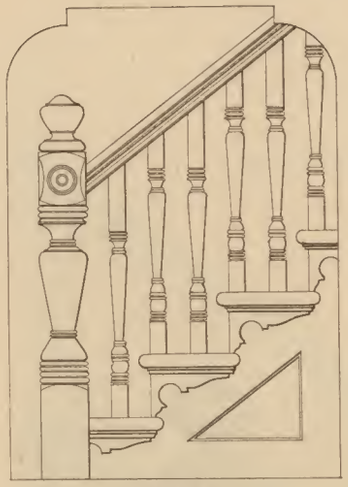


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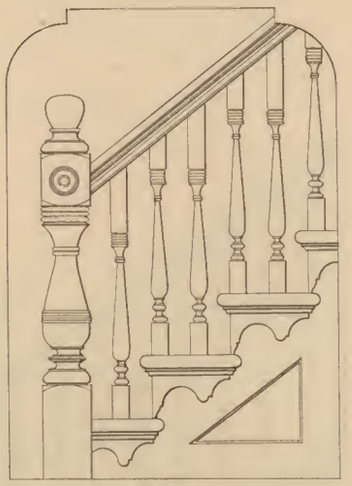


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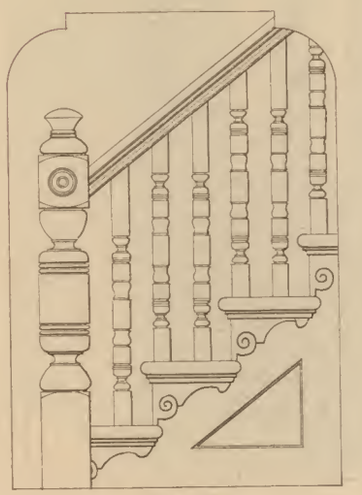


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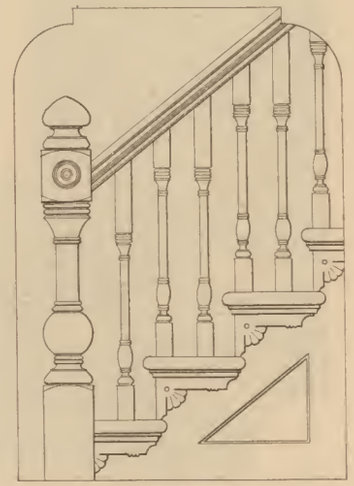


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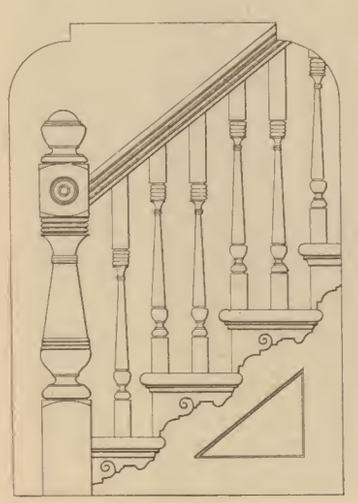


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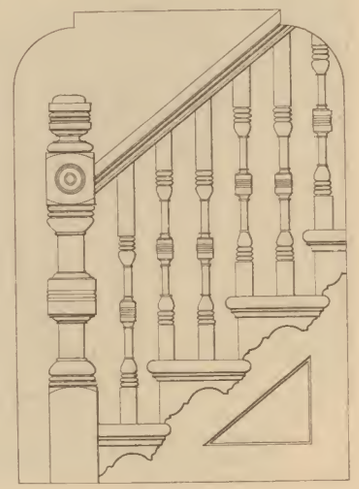


Fig. 511.

Willer Manufacturing Company's Original Designs for Stair Cases.

(Copyrighted.)

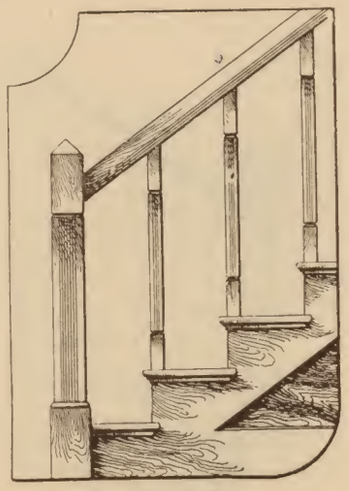


Fig. 512.

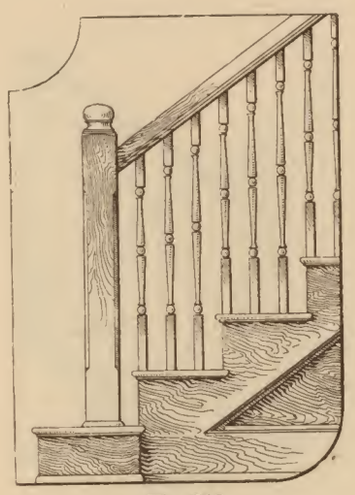


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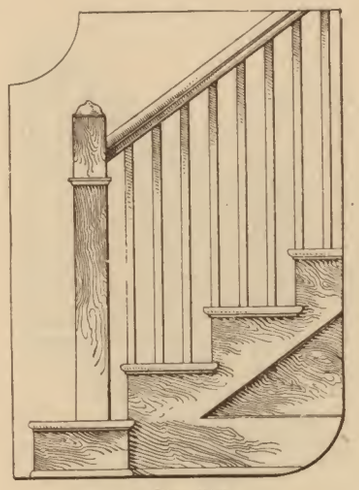


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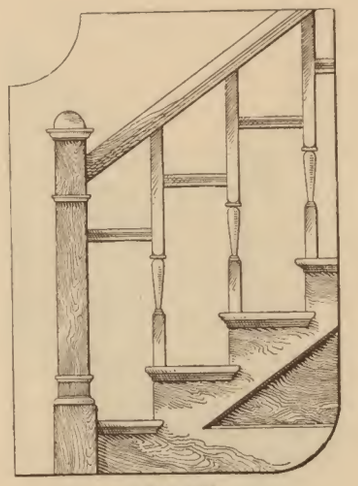


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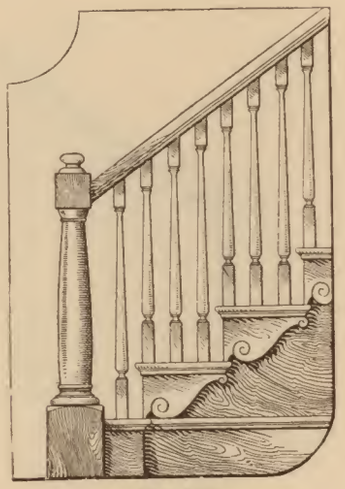


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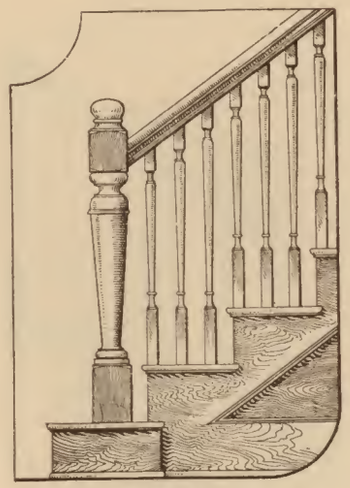


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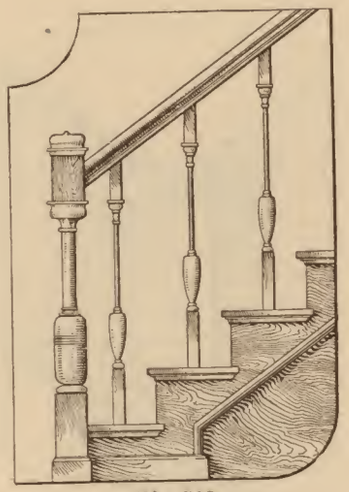


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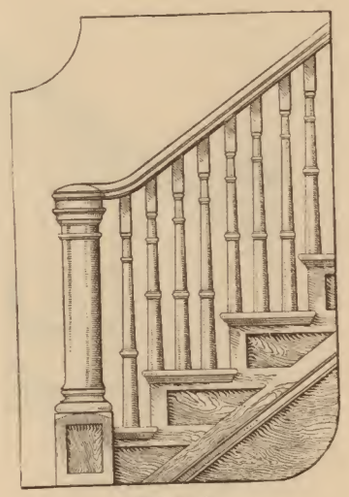


Fig. 519.

Willer Manufacturing Company's Original Designs for Stair Cases.

(Copyrighted.)

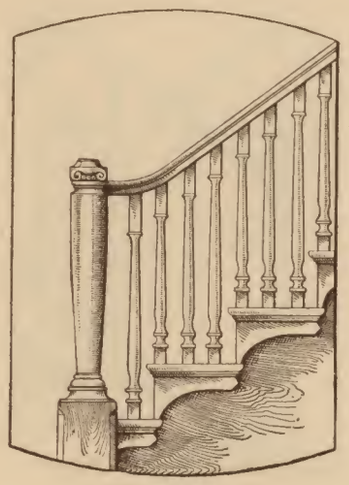


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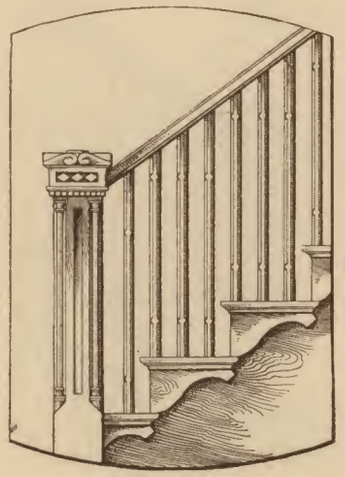


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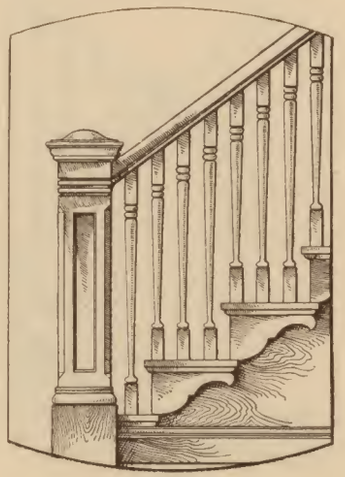


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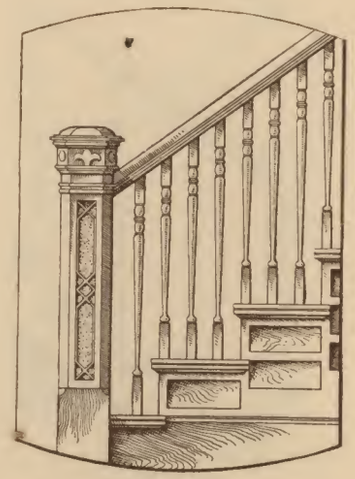


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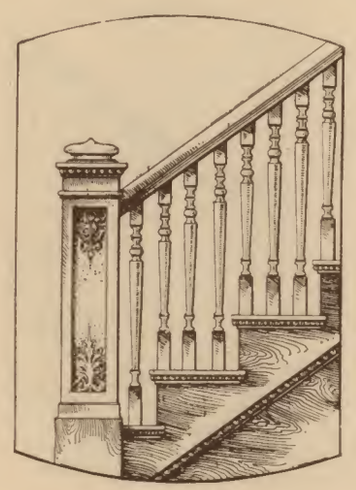


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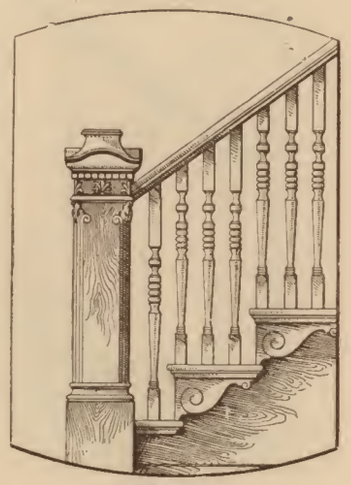


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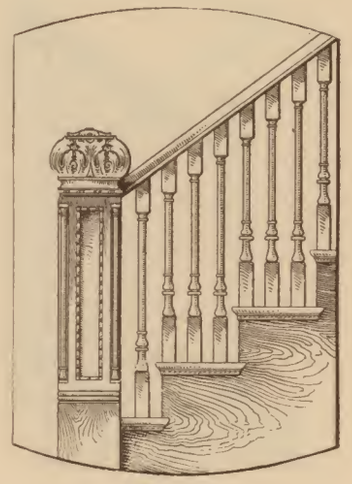


Fig. 526.

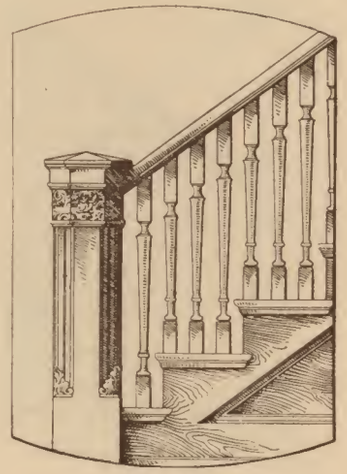


Fig. 527.

Willer Manufacturing Company's Original Designs for Stair Cases.

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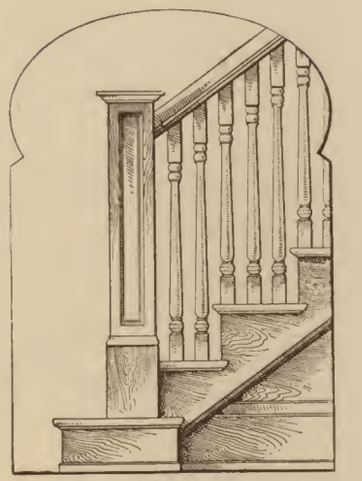


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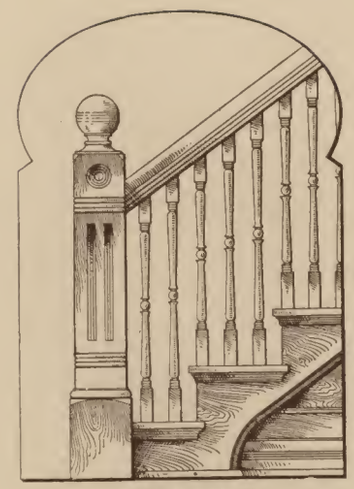


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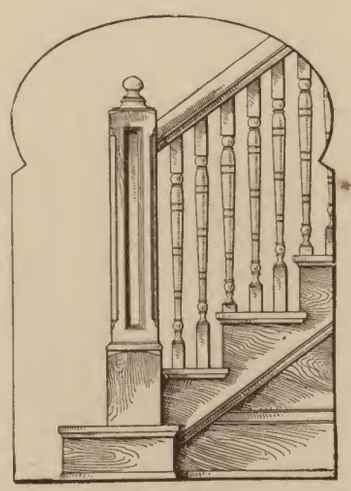


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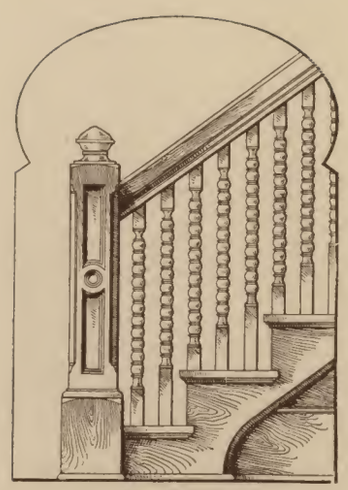


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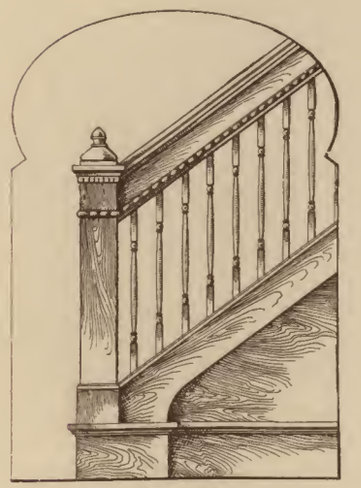


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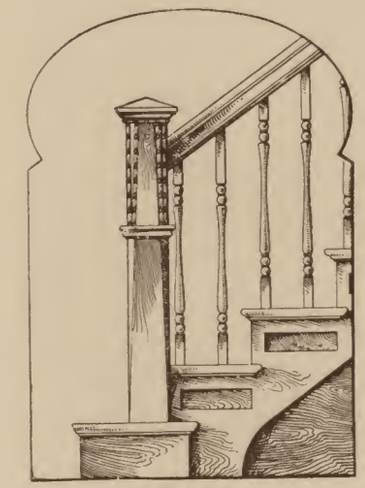


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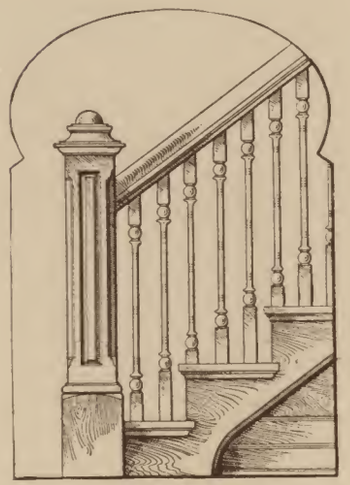


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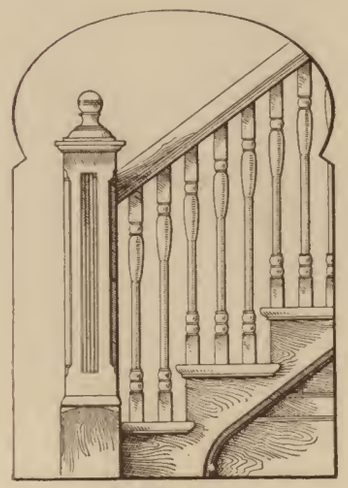


Fig. 535.

Willer Manufacturing Company's Original Designs for Stair Cases.

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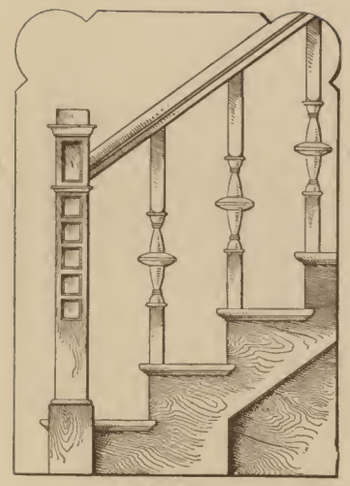


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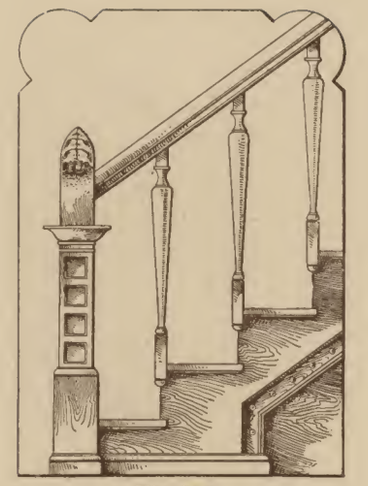


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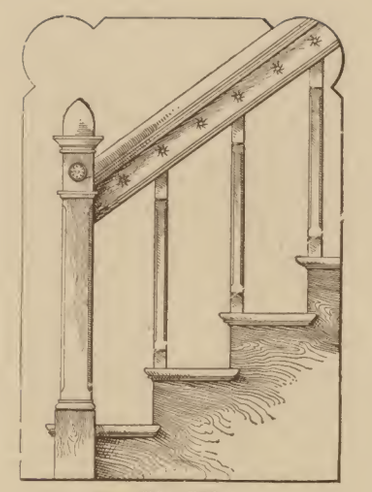


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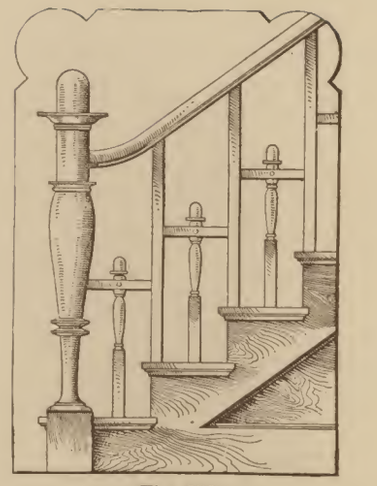


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Fig. 540.

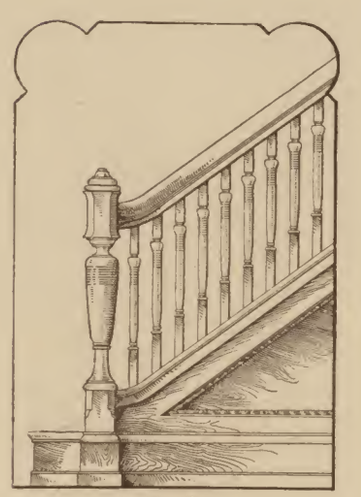


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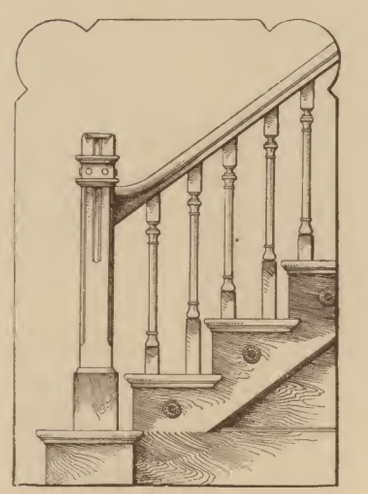


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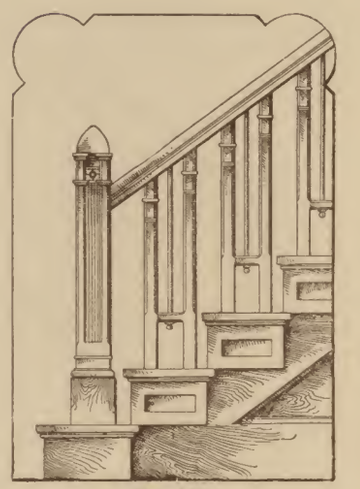


Fig. 543.

Willer Manufacturing Company's Original Designs for Stair Cases.

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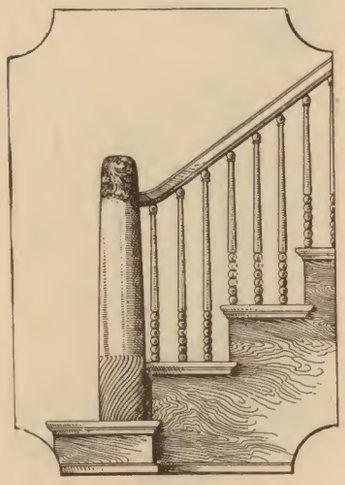


Fig. 544.



Fig. 545.

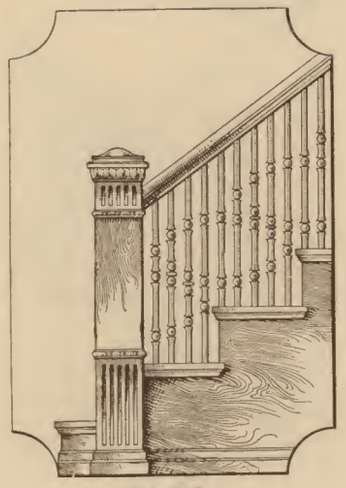


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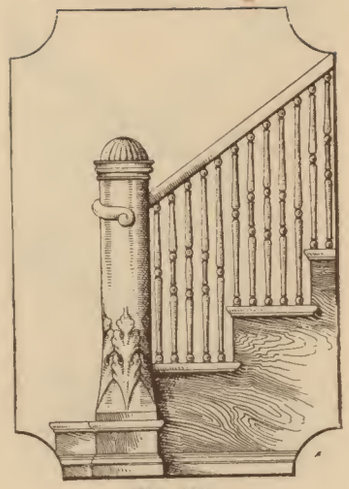


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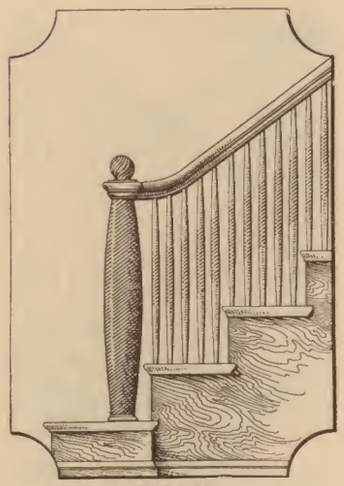


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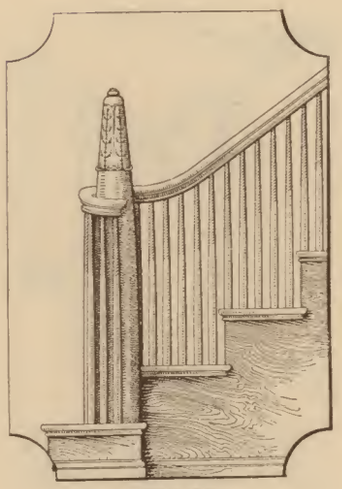


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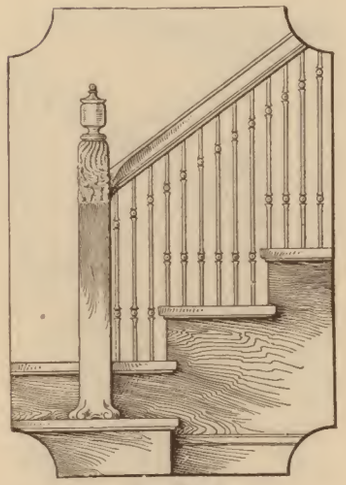


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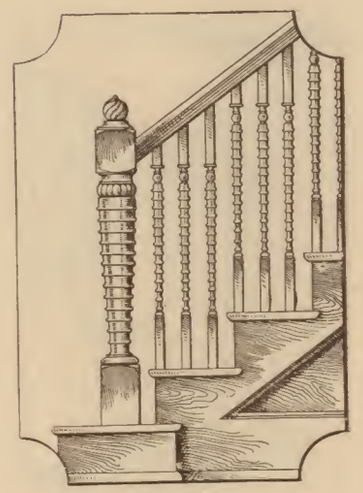


Fig. 551.

Willer Manufacturing Company's Original Designs for Stair Cases.

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Fig. 552.



Fig. 553.

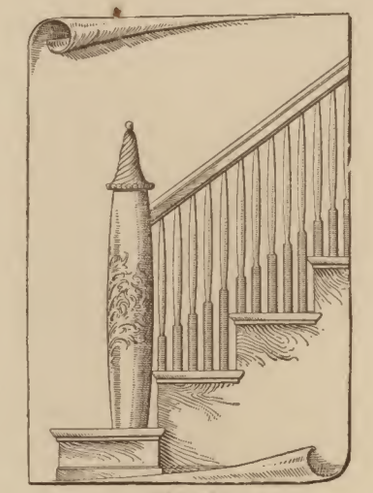


Fig. 554.



Fig 555.



Fig. 556.



Fig. 557.

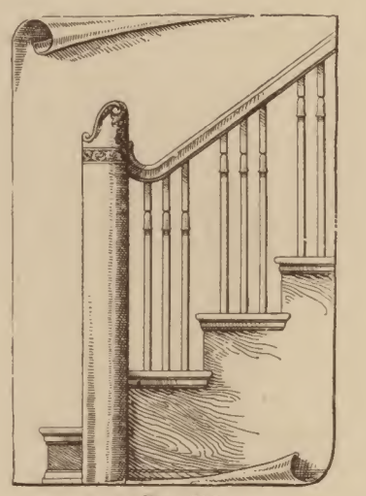


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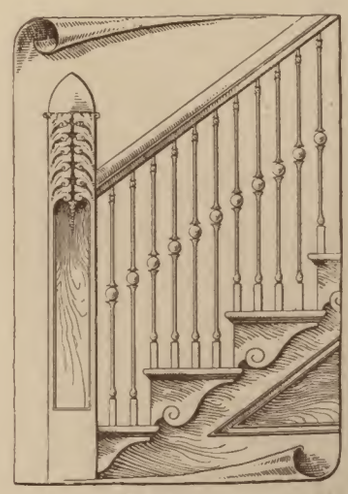


Fig. 559.

Willer Manufacturing Company's Original Designs for Stair Cases.

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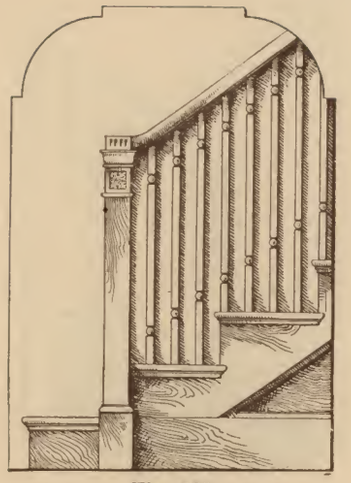


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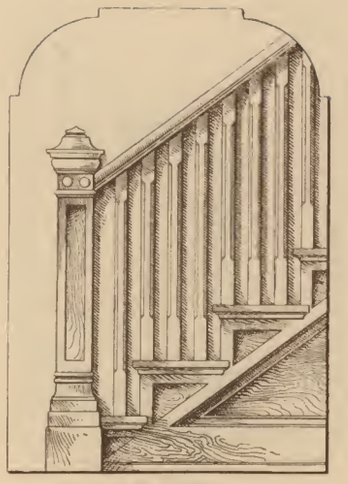


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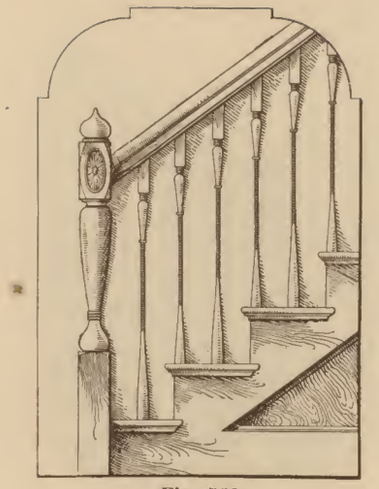


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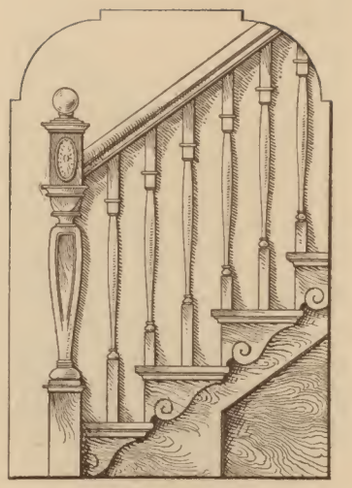


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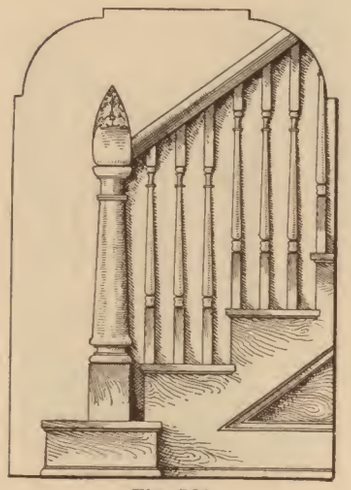


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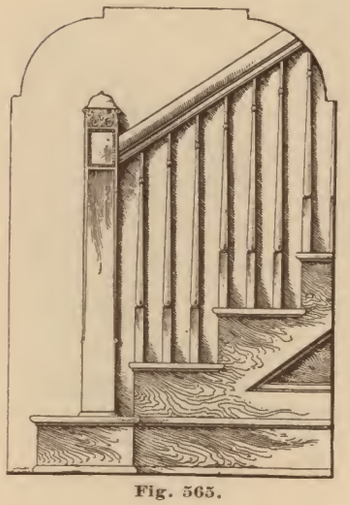


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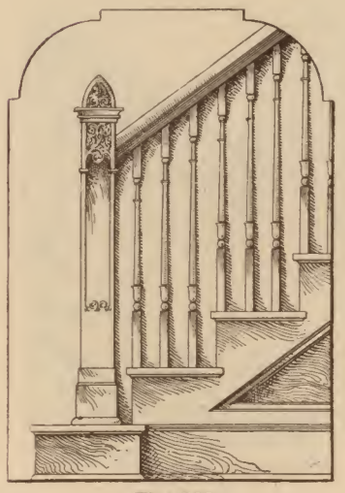


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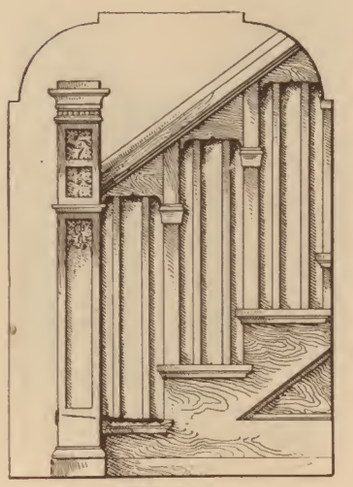


Fig. 567.

Willer Manufacturing Company's Original Designs for Stair Cases.

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Fig. 568.

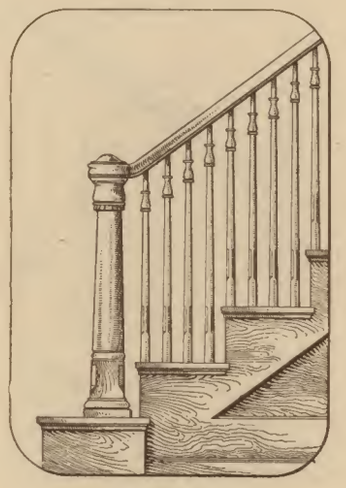


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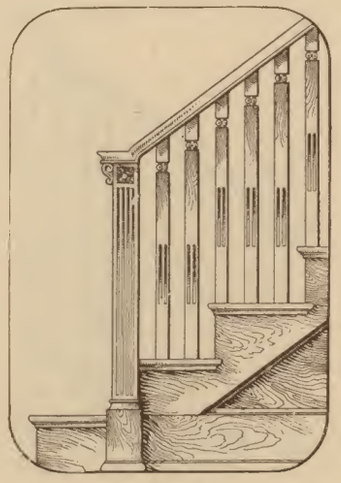


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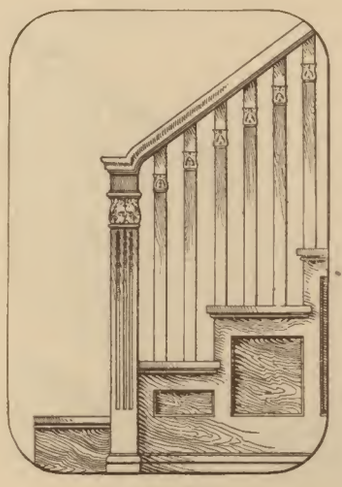


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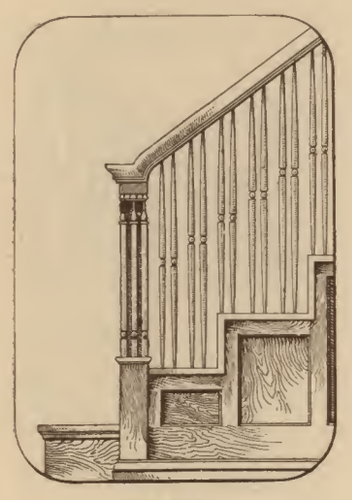


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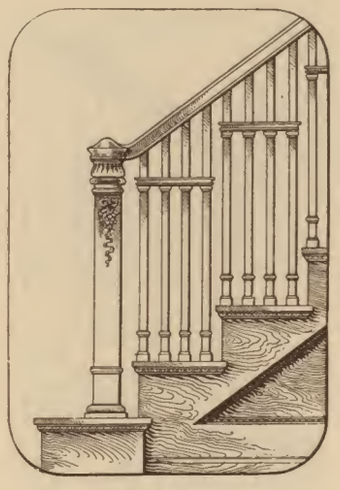


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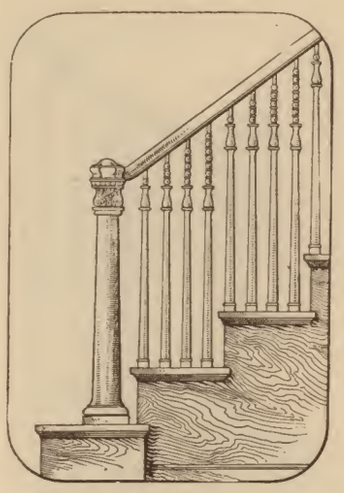


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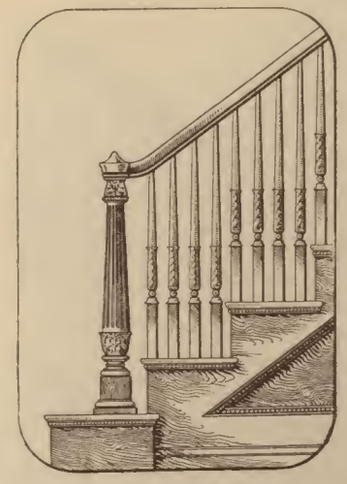


Fig. 575.

Willer Manufacturing Company's Original Designs for Stair Cases.

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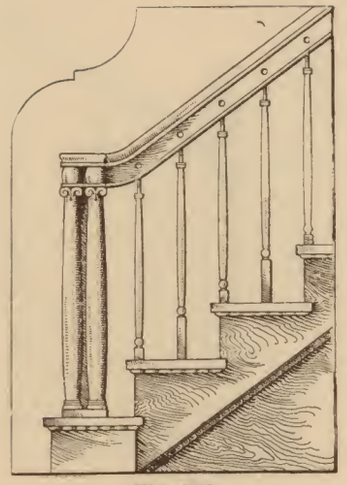


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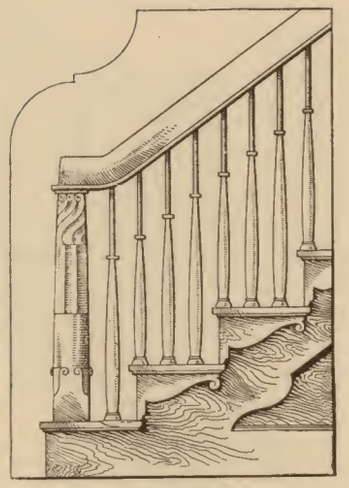


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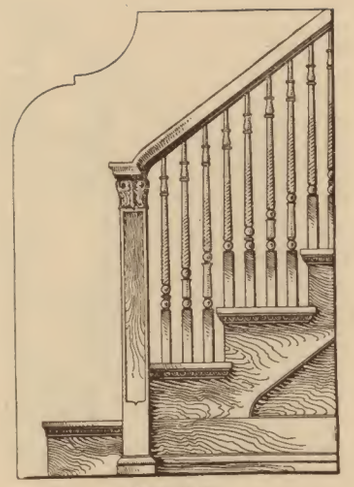


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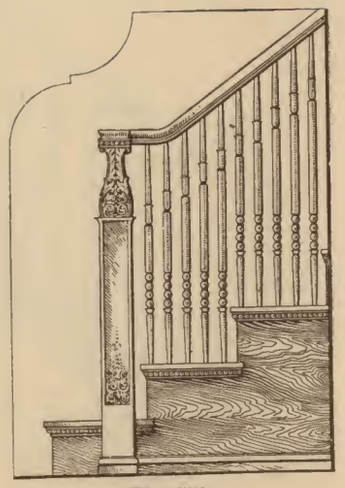


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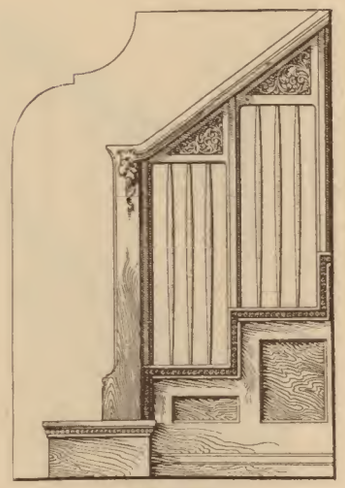


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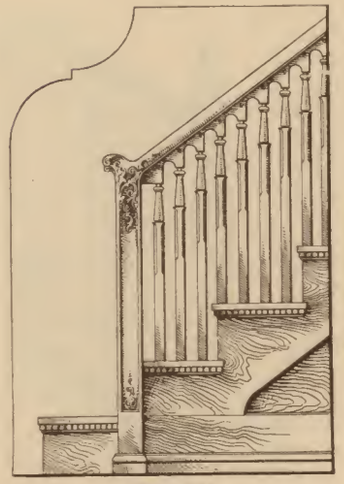


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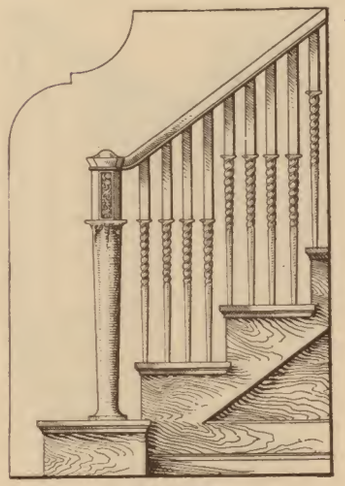


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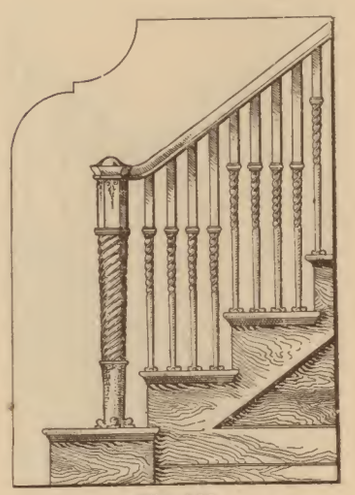


Fig. 583.

Willer Manufacturing Company's Original Designs for Stair Cases.

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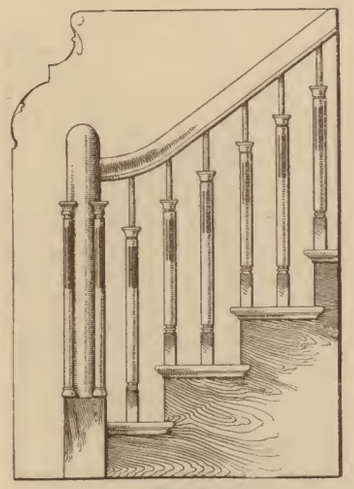


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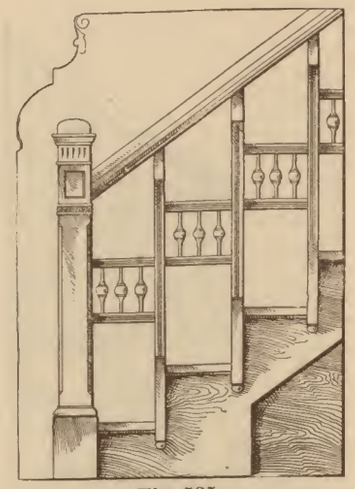


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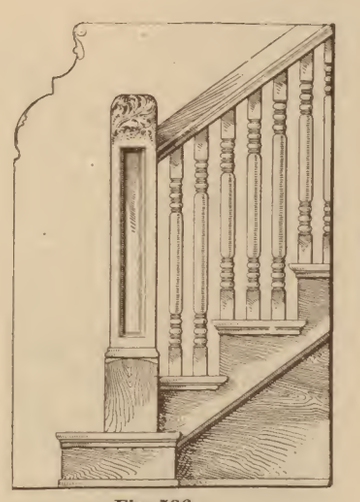


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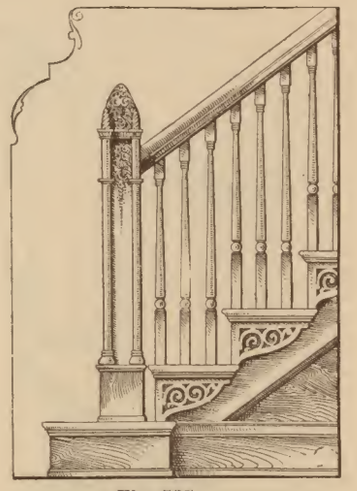


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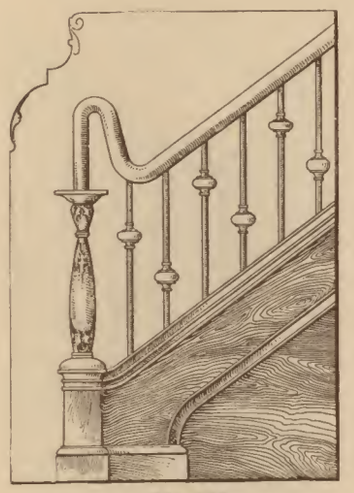


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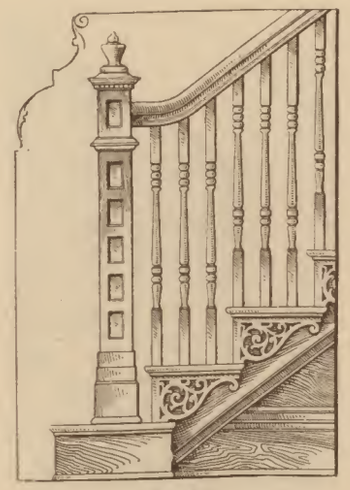


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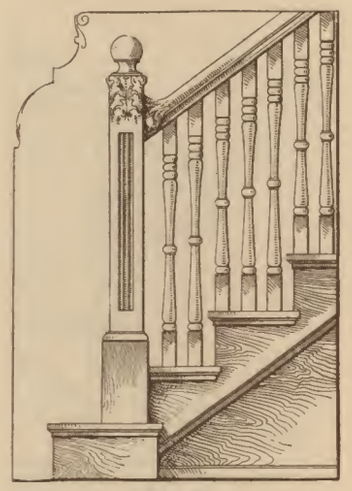


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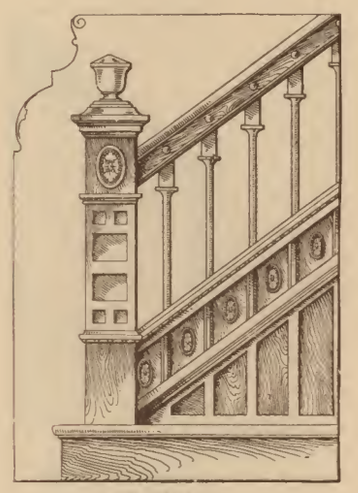


Fig. 591.

Willer Manufacturing Company's Original Designs for Stair Cases.

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Fig. 592.

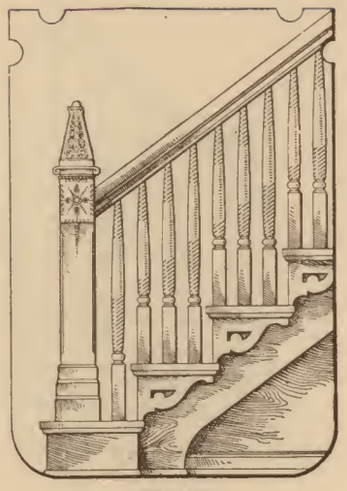


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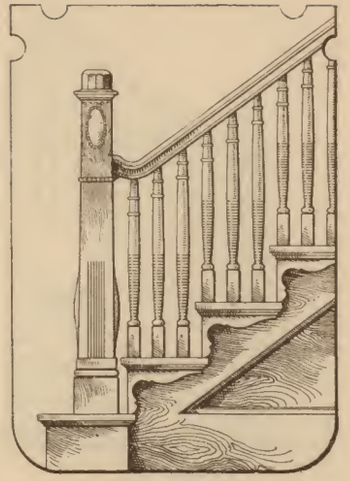


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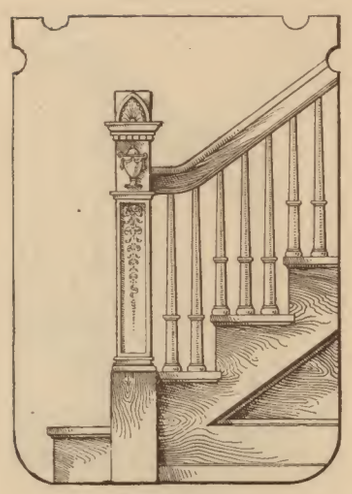


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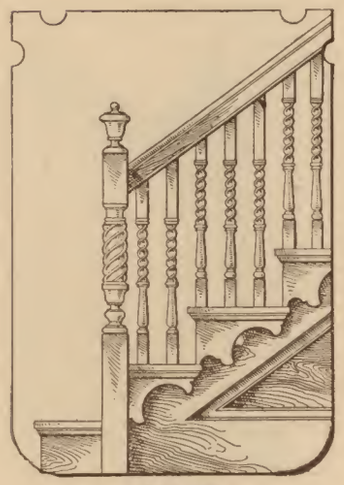


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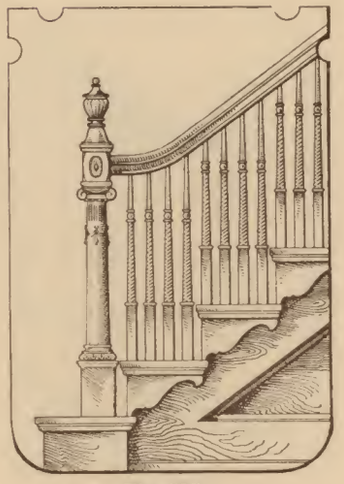


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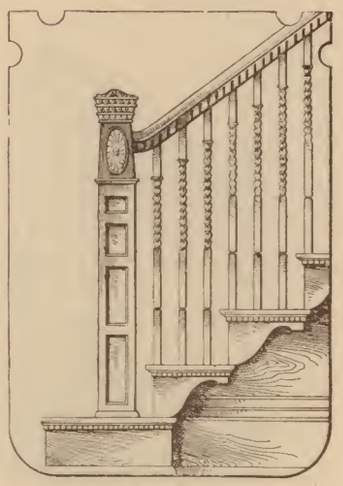


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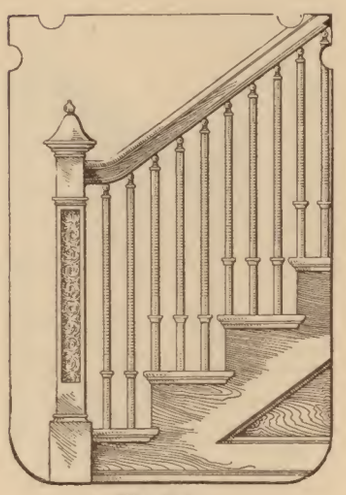


Fig. 599.

Willer Manufacturing Company's Original Designs for Stair Cases.

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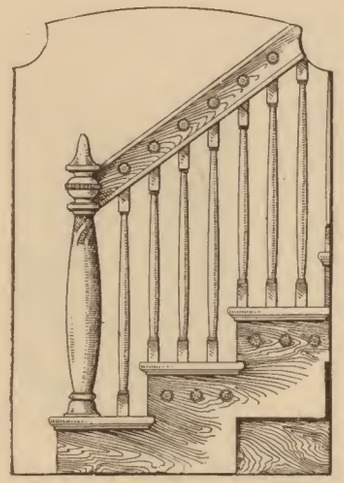


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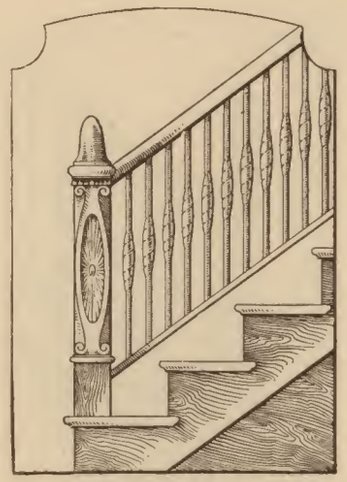


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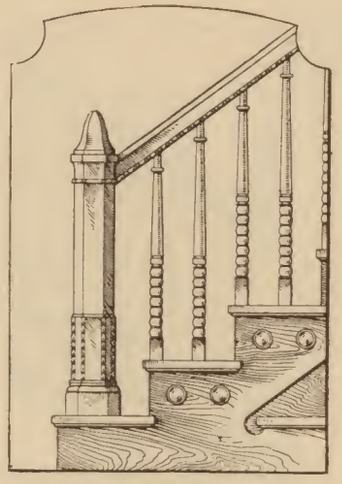


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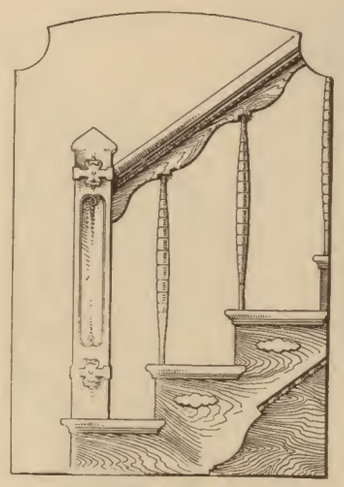


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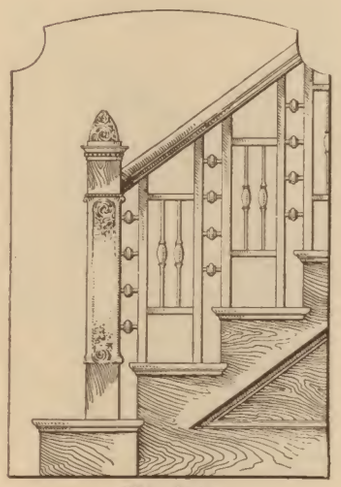


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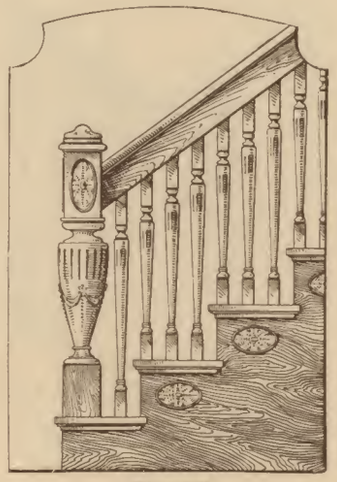


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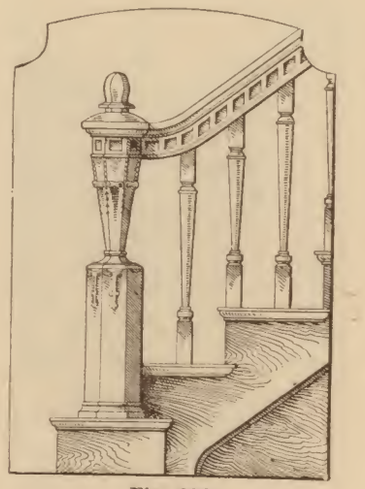


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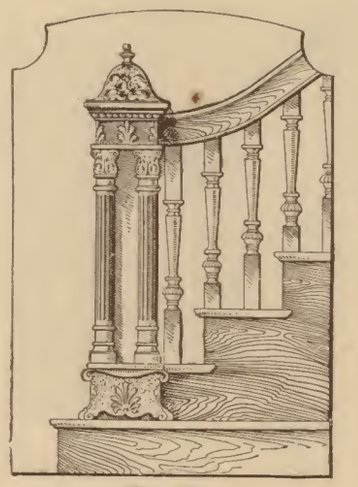


Fig. 607.

Willer Manufacturing Company's Original Designs for Stair Cases.

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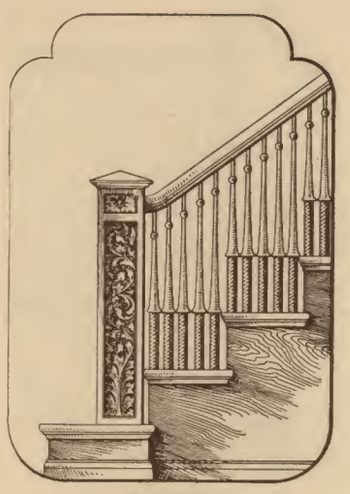


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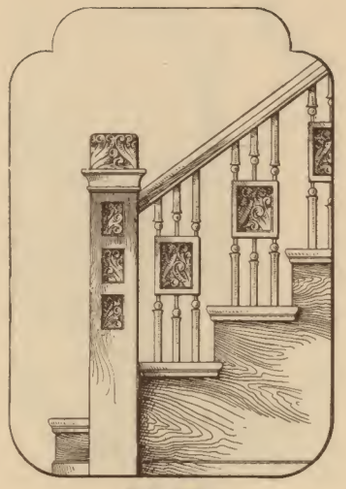


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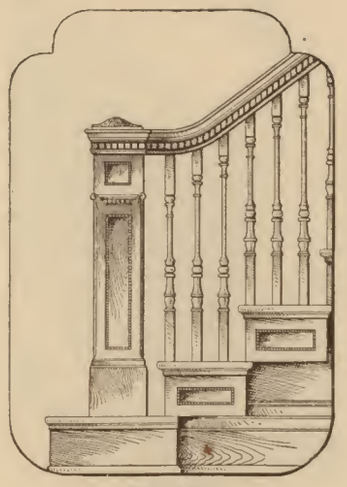


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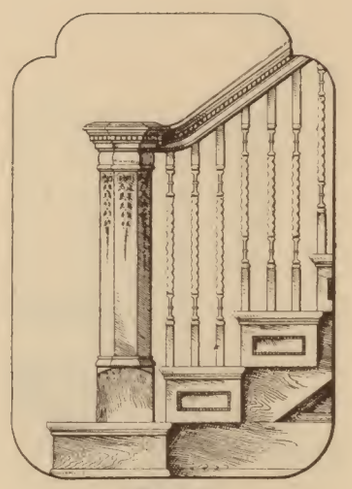


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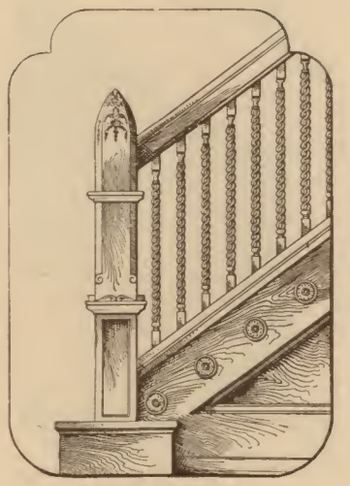


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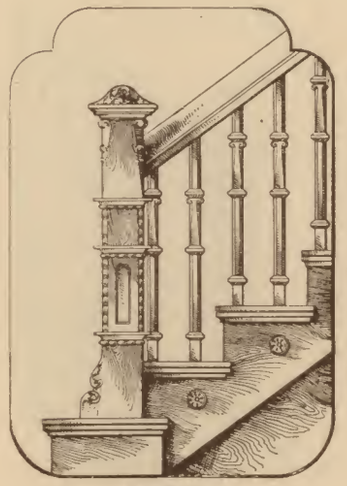


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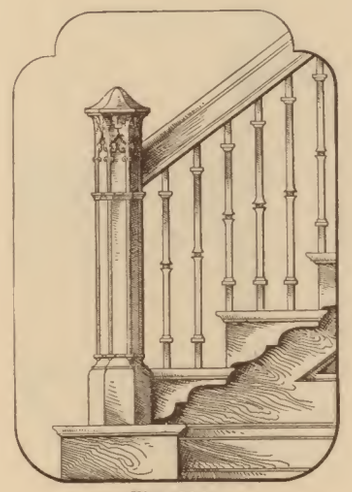


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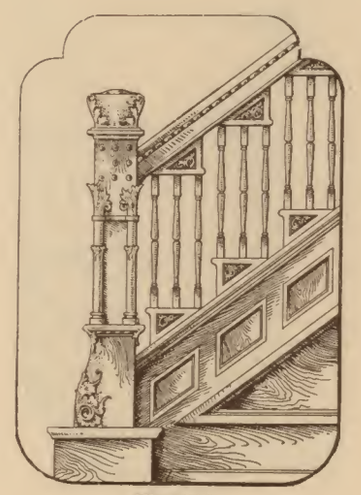


Fig. 615.

Willer Manufacturing Company's Original Designs for Stair Cases.

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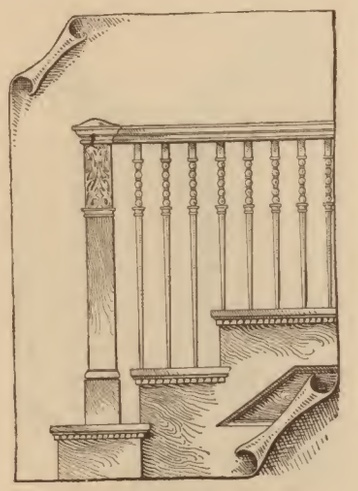


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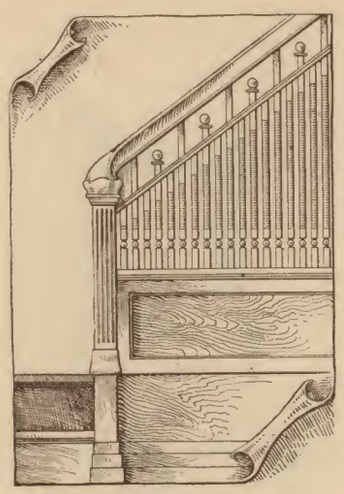


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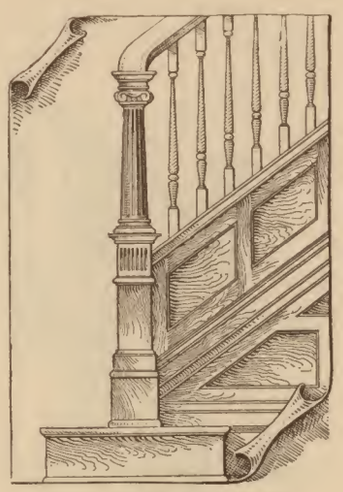


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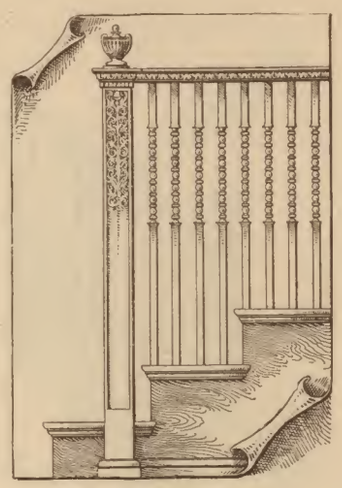


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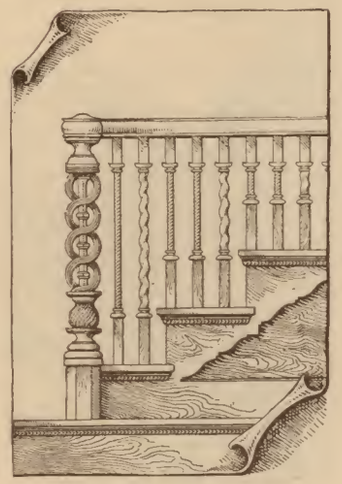


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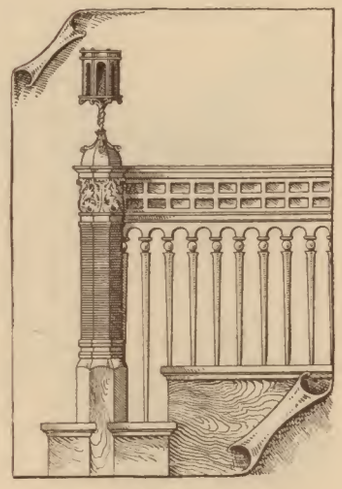


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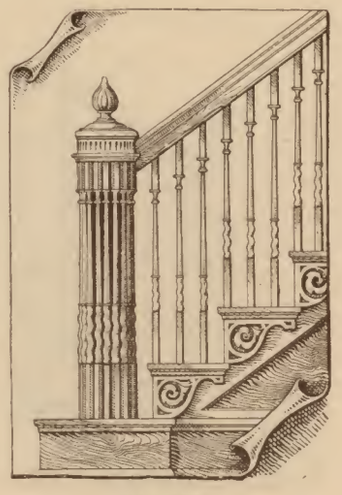


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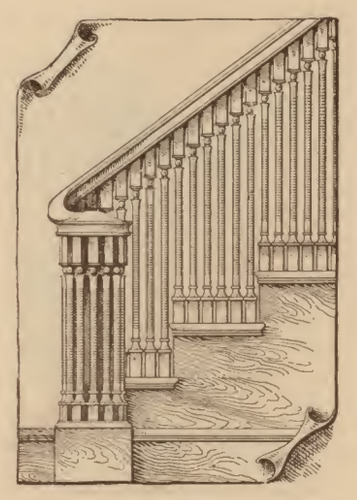


Fig. 623.

Willer Manufacturing Company's Original Designs for Stair Cases.

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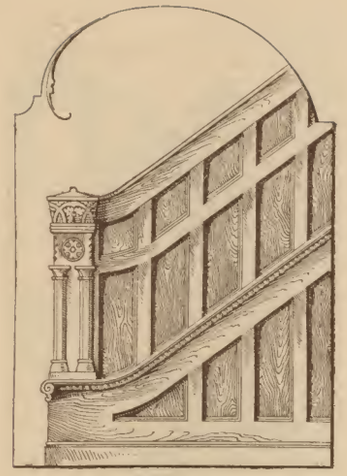


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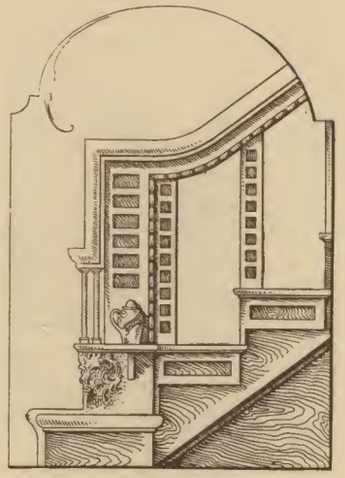


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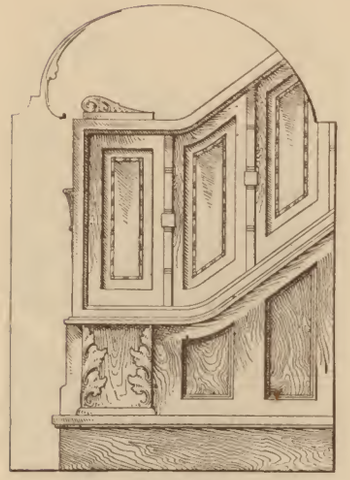


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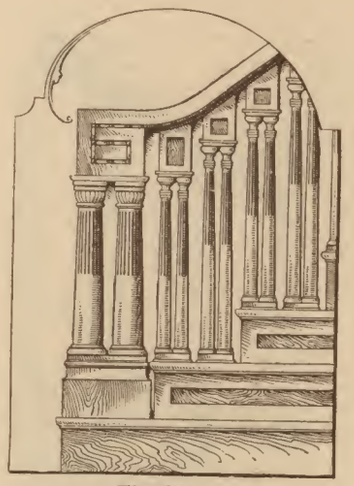


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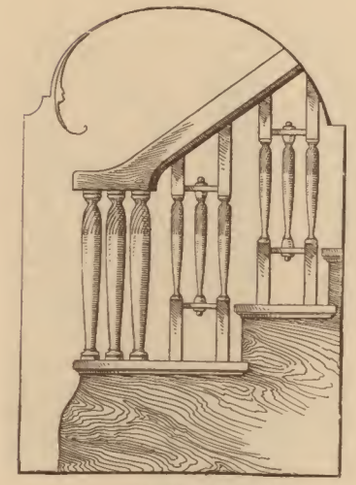


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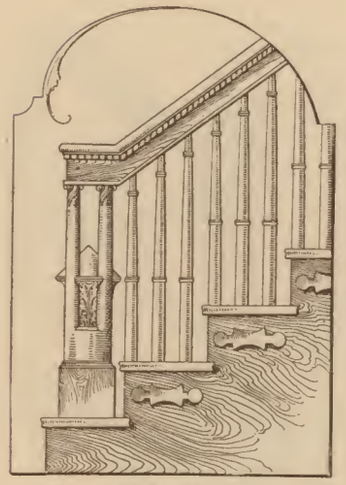


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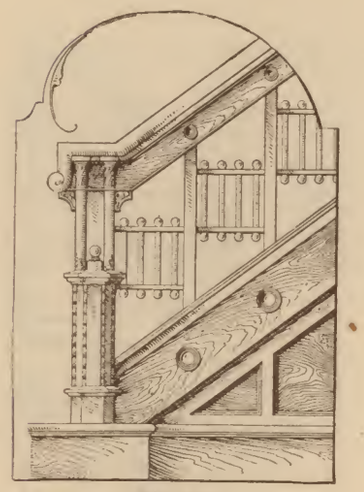


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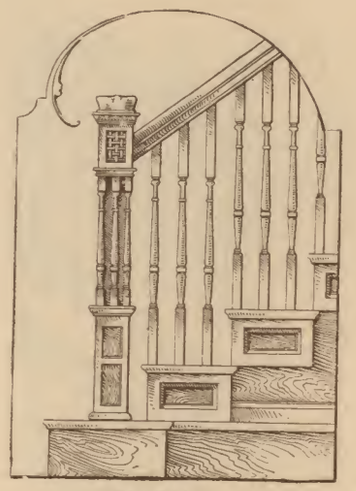


Fig. 631.

Willer Manufacturing Company's Original Designs for Stair Cases.

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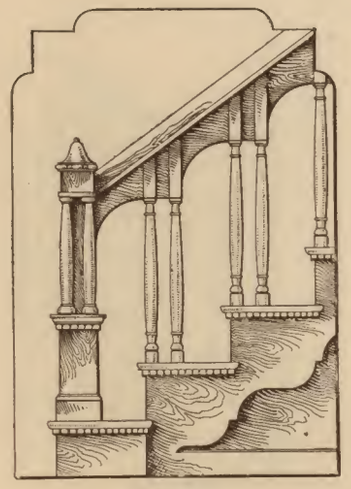


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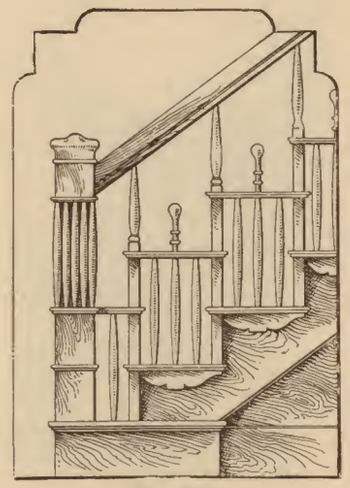


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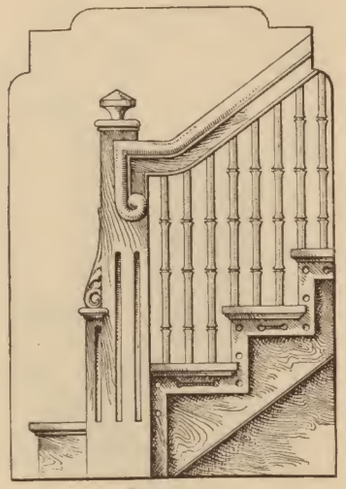


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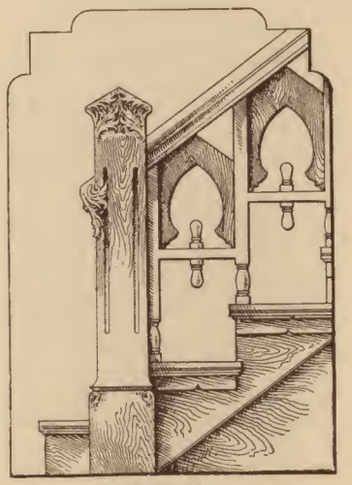


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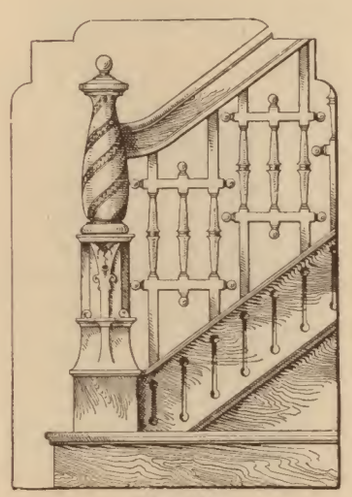


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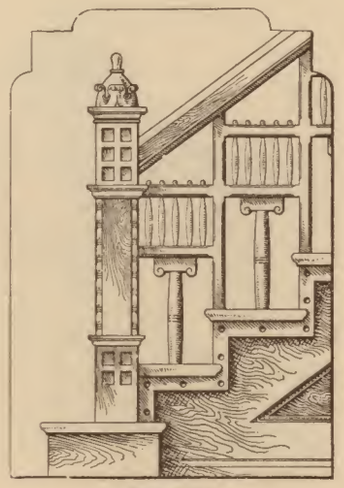


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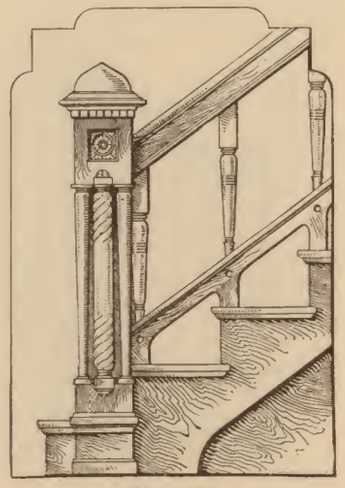


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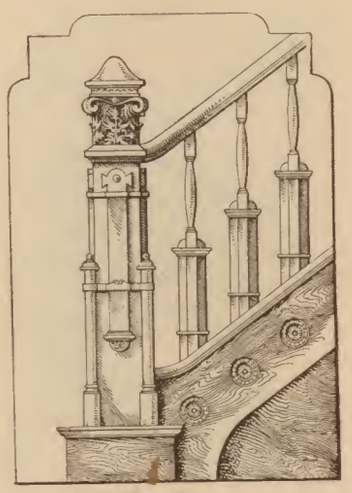


Fig. 639.

Willer Manufacturing Company's Original Designs for Stair Cases.

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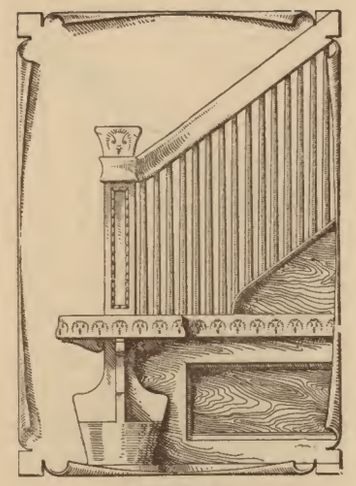


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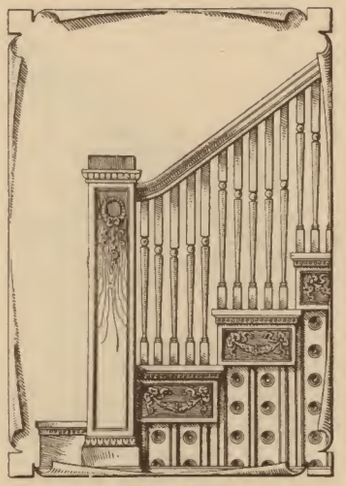


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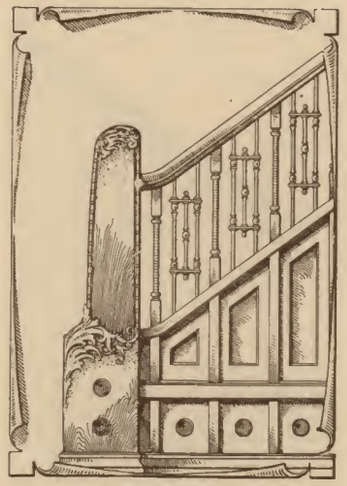


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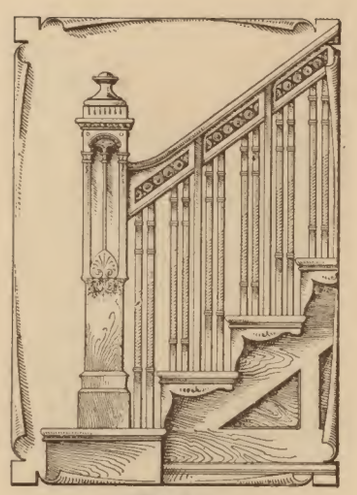


Fig. 643.

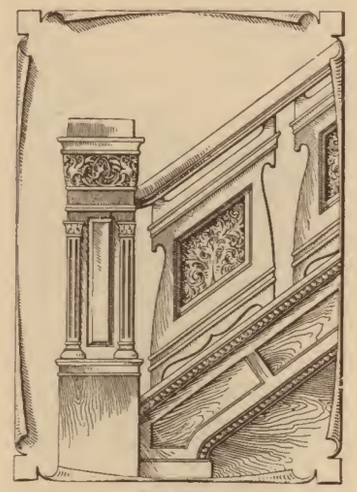


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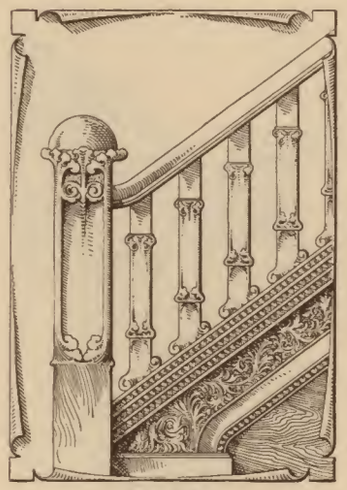


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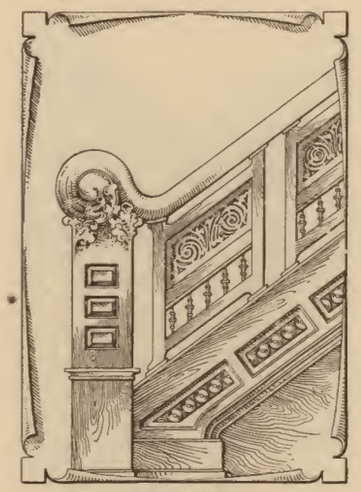


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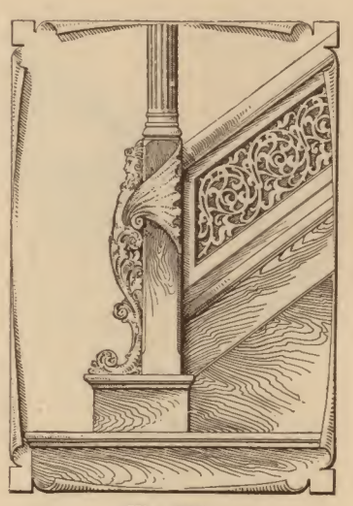


Fig. 647.

Willer Manufacturing Company's Original Designs for Stair Cases.

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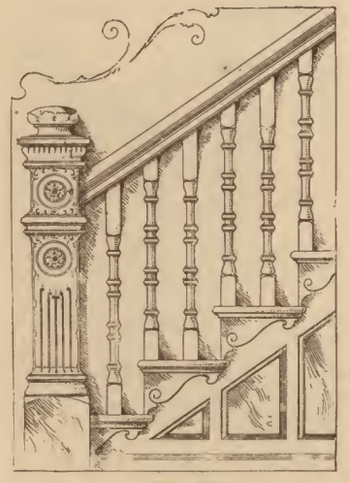


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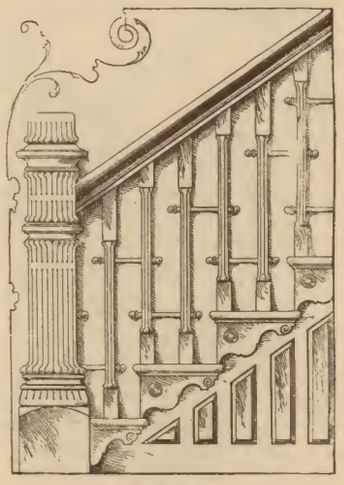


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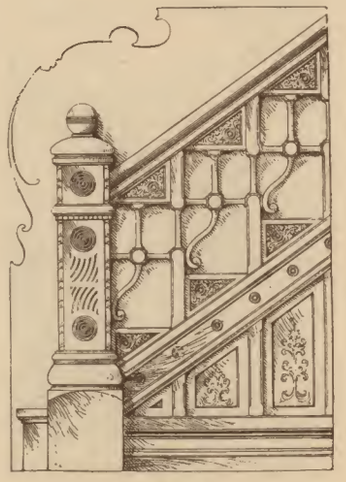


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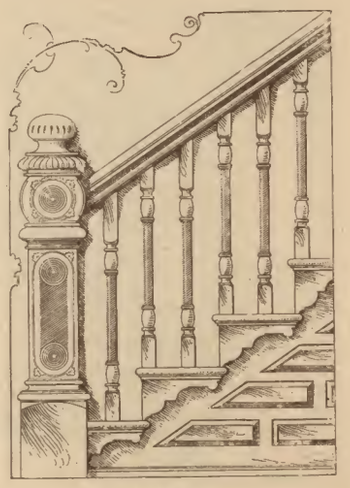


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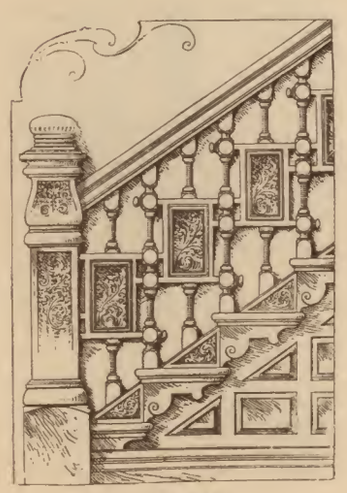


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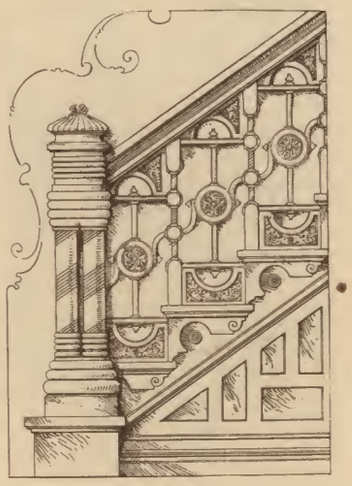


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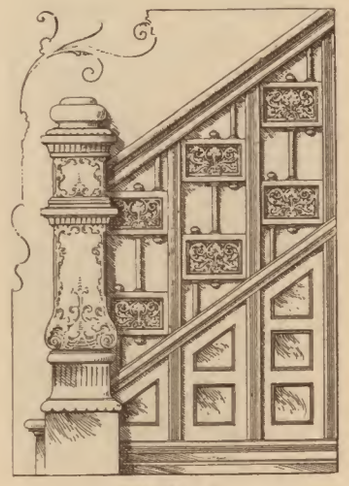


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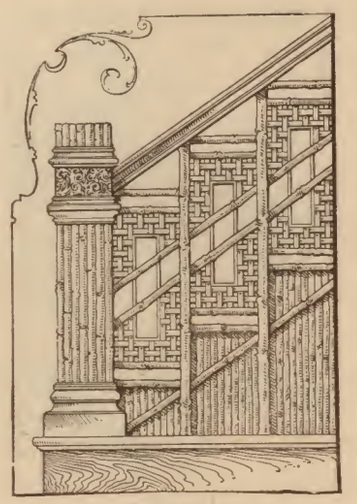


Fig. 655.

Willer Manufacturing Company's Original Designs for Stair Cases.

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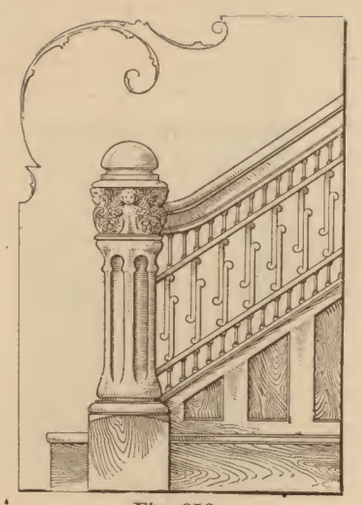


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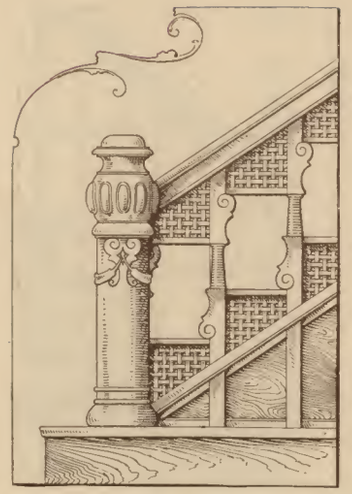


Fig. 657.



Fig. 658.



Fig. 659.



Fig. 660.

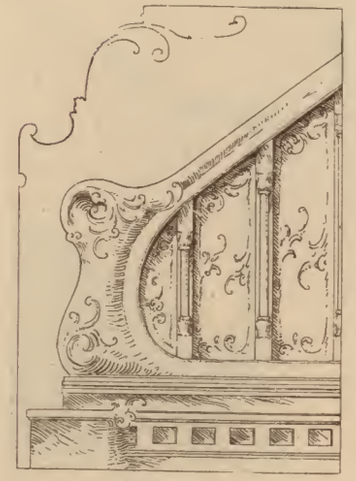


Fig. 661.

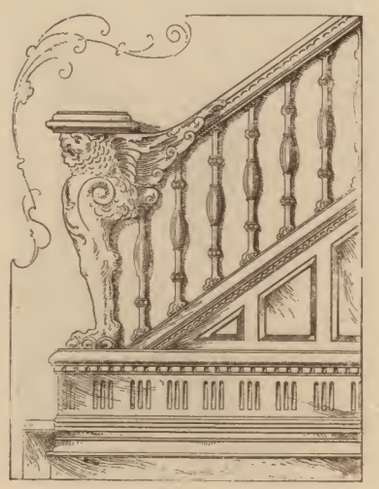


Fig. 662.



Fig. 663.

Willer Manufacturing Company's Original Designs for Stair Cases.

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Fig. 664.

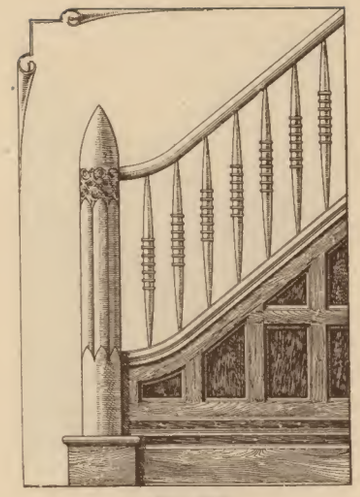


Fig. 665.

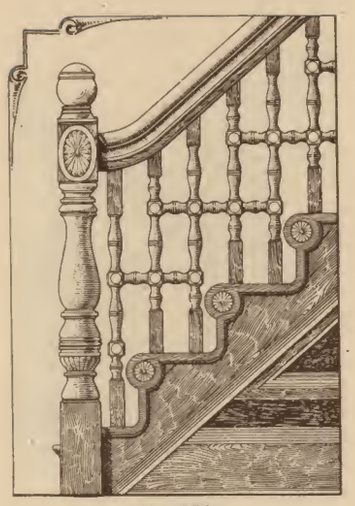


Fig. 666.

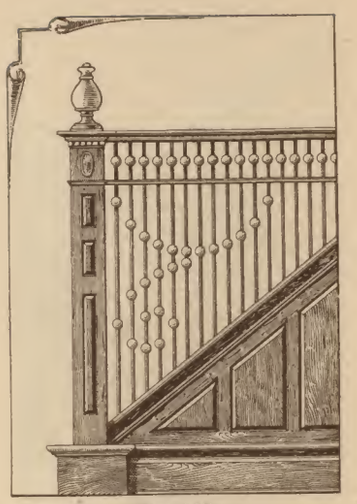


Fig. 667.

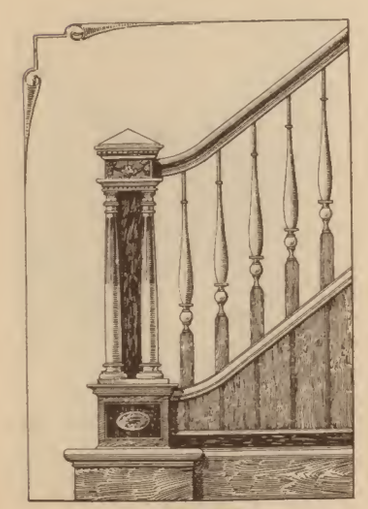


Fig. 668.

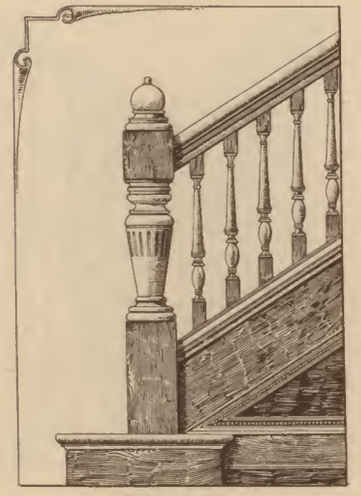


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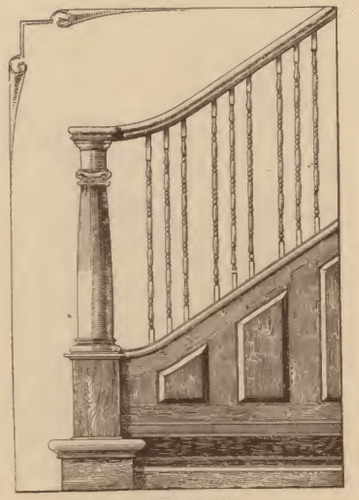


Fig. 670.

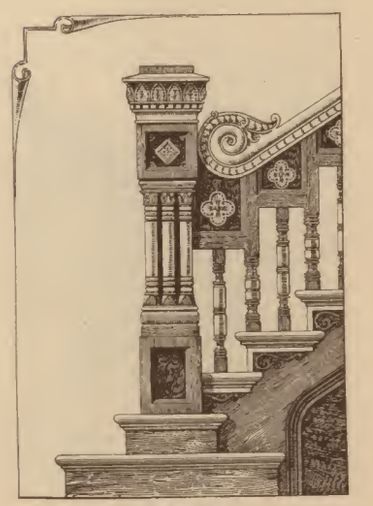


Fig. 671.

Willer Manufacturing Company's Original Designs for Stair Cases.

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